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Teaching Health Literacy in Conjunction with ESL

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Teaching Health Literacy in Conjunction with ESL

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Master of Arts in Teaching English as a Second Language

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Dora Lee
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in

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Under the guidance and approval of the committee, and approval by all the members, this field project has been accepted in partial fulfillment of the requirements of the degree.

Approved:

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CHAPTER I
INTRODUCTION

Statement of the Problem

The purpose of this project is to create a curriculum that English as a Second Language (ESL) teachers can implement to improve the English language proficiency and the health literacy skills of adult ESL speakers with limited English proficiency residing in the United States. The curriculum is designed for teachers who work with ESL speakers who may be having trouble obtaining, processing, communicating, or managing health information due to language barriers.

Demographic data and immigration trends reveal that the population in the United States is becoming more linguistically diverse. In 1980, 23.1 million people in the United States spoke a language other than English in the home. By 2009, 57.1 million people in the United States spoke a language other than English in the home (Mui, S. Kang, D. Kang, & Domanski, 2007; Shin & Ortman, 2011). According to the U.S. Census Bureau, among people who spoke a language other than English at home, about half reported they spoke English below the "very well" level. People who spoke English below the "very well" level are considered to need English language assistance in some situations (Shin & Kominski, 2010).

In addition, the United States Center for Disease Control and Prevention (2013) found that people who spoke a language other than English at home reported poorer health and a higher number of sick occurrences within a year compared with people who spoke English in the home. They also exhibited a higher prevalence of certain medical conditions such as obesity and diabetes. Poorer health outcomes once diagnosed with medical conditions, such as experiencing complications once diagnosed with diabetes, were also associated with those who spoke a

language other than English in the home. (CDC, 2013; Martinez et al., 2013, Mui et al., 2007).

While many factors such as socioeconomic status and lack of health coverage may contribute to the poorer health experienced by those who speak a language other than English at home, language barriers also play a role in the health discrepancies. Many ESL speakers who have limited English proficiency also have low levels of health literacy, which are all the social and cognitive skills necessary for an individual to gain, obtain, understand, process, and communicate health information in order to make appropriate health decisions and maximize health (Glassman, 2013; Martinez et al., 2013; Nimmon, 2010; Sentell & Braun, 2012; U.S. Department of Health and Human Services, 2000). In a study of California racial and ethnic minorities, Sentell and Braun (2012) found that 44.9 percent of the people surveyed who had limited English proficiency also reported low health literacy rates compared with 13.8 percent of people who were proficient in English.

One of the ways in which limited English proficiency contributes to low health literacy is that ESL speakers often have difficulties understanding medical information, instructions, diagnoses, treatment recommendations, and treatment alternatives from health care providers. Moreover, those with limited verbal fluency in English have trouble expressing their medical concerns and symptoms to health care providers. In some cases, these individuals may be discouraged from seeking health care because they cannot communicate with health care providers who speak English (Coren et al., 2009; Diehl, 2011; Kung, 2004). ESL speakers also have trouble reading written health information on brochures, pamphlets, handouts, newspapers, medication bottles, and the Internet. These written materials usually require at least a 9th grade reading comprehension level. In addition, they may not know how to actively seek information

about disease prevention and disease management (Diehl, 2011; Lopez-Quintero, Berry, & Neumark, 2010). ESL speakers may also have trouble filling out medical forms that require English writing skills (Soto et al., 2013). Furthermore, ESL speakers also have trouble navigating the health care system and understanding their rights as patients in the health care system. They have trouble accessing insurance programs and other methods of paying for health care due to difficulties understanding information in English about these services (Diehl, 2011; Singleton & Krause, 2009).

The limited health literacy of these individuals has consequences on their health promotion and disease management practices, resulting in less than optimal health and poorer health outcomes. For example, ESL speakers who are discouraged from seeking regular, preventative care due to language barriers may experience adverse health outcomes later on when certain chronic conditions such as diabetes and cardiovascular disease are not detected or treated early. In addition, not understanding health care providers' instructions about how to manage a disease can result in decreased patient compliance with treatment (Coren et al., 2009; Nimmon, 2010; Wilson et al., 2005). Moreover, miscommunication or lack of communication between patients with limited English proficiency and health care providers may result in misdiagnoses, wrong treatment recommendations, or withholding of appropriate treatment (Coren et al., 2009; Divi et al., 2007; John-Baptiste et al., 2004). Furthermore, the ability of an ESL speaker to obtain, comprehend, and utilize medical information not only affects the individual ESL speaker, but any family members that the person may be trying to obtain medical care for (Diehl, 2011; Leyva et al., 2005).

In summary, a great number of adult ESL speakers who are residing in the United States

have low levels of health literacy. Because of their low health literacy, they are less able to manage their health care and make appropriate health decisions, resulting in less than optimal health. This subsequently contributes to the existing health disparities in the United States between adults with limited English proficiency and adults who are fluent in English. Given the correlation between health and English proficiency, it is important for ESL instructors to address the issue of health literacy among adult ESL speakers and to have access to resources to facilitate integration of health literacy education and ESL education.

Purpose of the Project

The purpose of this project is to create a curriculum that ESL teachers can implement to improve the English language proficiency and the health literacy skills of adult ESL speakers residing in the United States.

For this project, content-based ESL using health literacy as the focus will be the vehicle for developing students' English proficiency and health literacy. The curriculum and its materials are designed to be implemented by instructors in ESL instructional settings where the students have trouble obtaining health services or have difficulties understanding and communicating health information. Students who would benefit the most from this curriculum are recent immigrants who are economically and educationally disadvantaged. This population is most likely to have low rates of health literacy due to other factors such as socioeconomic status and educational background compounding the issue of limited English proficiency. These students are usually learning English for practical purposes to survive in the United States. Students need to be at a high-beginning or low-intermediate level of English proficiency and need to have basic literacy skills in their first language to effectively utilize the materials included in the curriculum.

This includes being able to read, speak, and understand short phrases and sentences in addition to understanding basic vocabulary since students will be asked to read authentic health materials as well as carry on conversations about health topics in English.

Through this curriculum students will be better able to make appropriate health decisions to promote and maintain their health as well as the health of their family members. In this way, this project contributes to the larger goal of improving health outcomes for ESL speakers residing in the United States. This will also help to address health disparities between those who can speak English fluently and those who cannot.

Theoretical Framework

This field project draws from Lave and Wenger's situated learning theory, Michael Halliday's theory of systemic functional linguistics, and Lev Vgotsky's sociocultural theory. The following paragraphs give a brief description of each of these theories and discusses how these theories form the foundation for this field project.

According to Lave and Wenger, learning occurs through legitimate peripheral participation (1991). In other words, learners gain knowledge and skill as they participate in the sociocultural practices of various communities. A community of practice is defined as a set of relations among people, activity, and the world. As people are introduced to a community, they move from being newcomers to becoming full participants of the community through actively engaging in the social practices of the community. Learning is an integral part of the process as individuals develop their identities and knowledgeable skills. In addition to changing the learner's identity and skills, this process also transforms the communities themselves, the relationships among all the participants of the communities, and the social practices of the

communities. Moreover, communities of practice are constantly reproducing themselves as new-comers become knowledgeably skilled old-timers and additional learners join the community.

The theory of situated learning rejects the conventional view that learning occurs when a learner internalizes knowledge that is transmitted to them from some external source. Learning is not simply a matter of transmitting knowledge and acquiring skills. The theory of situated learning posits that learning, understanding, thinking, and knowing involve constantly evolving relations among people who are actively engaging in activity in a sociocultural world. Therefore, access to practice, not instruction, is necessary for learning.

In relation to this project, ESL-speakers are legitimate peripheral participants in the health care community. They do not have all the language and health literacy knowledge and skills to be full participants yet. In this field project, ESL learners participate in classroom practices that are designed to emulate the actual practices that occur in the health care setting. This will hopefully develop the learners knowledgeable skills so that they can more fully participate in managing their own care. This will change the identities of the ESL speakers, relationships between health care seekers and health care providers, and the health care community itself.

This project is also based on Michael Halliday's theory of Systemic Functional Linguistics. Within the community of practice of health care, ESL speakers and health providers use language systematically to serve a variety of functions. According to Michael Halliday's Theory of Systemic Functional Linguistics, language is not a set of fixed rules and structures, but it is a way of making meaning in specific situations and contexts. Language is a network of systems, and each clause conveys an experiential, interpersonal, or textual meaning. Experiential

meanings refer to what is happening in the world, interpersonal meanings refer to roles that the participants are playing, and textual meanings refer to how the written or spoken text is organized (Schleppegrell, Achugar, & Oteiza, 2004). Linguistic choices contribute in a systematic way to the construction of meaning (Yasuda, 2011). In addition, Halliday states, "humans simultaneously engage in learning language and learning through language" (as cited in Kong, 2009).

Furthermore, Halliday also identifies seven functions of language, which include the instrumental, regulatory, interactional, personal, heuristic, imaginative, and informational (as cited in Barclay, 2011). Knowing how to use the English language to fulfill the various language functions is essential to developing health literacy skills. Describing medical symptoms is an example of speakers using language to fulfill the personal function of language. Speakers need to know how to use language instrumentally to state what they need from their health care providers. Students knowledge of the heuristic function of language will enable them to ask for more information about their medical conditions.

In accordance with the theory of Systemic Functional Linguistics described above, the purpose of this curriculum is to help students utilize the English language in a way that will allow them to make meaning and serve various functions in the health care context. Through this health literacy content-based ESL course, students will learn the English language as well as learn health literacy skills through that language.

Lev Vygotsky's sociocultural theory also informed the development of this project. According to Vygotsky's sociocultural theory, learning originates in the social mediation provided by interactions. Language learners are not simply processors of input, but are speakers

and listeners going through developmental processes as they interact with others. Language learning and acquisition is a collaborative process in which learners adopt the language of interaction for their own purposes (as cited in Gibbons, 2003).

Moreover, for each learner, there is a "distance between the current developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p.86). This is called the Zone of Proximal Development (ZPD). The guidance that is provided for the learner to move from their current developmental level to their potential developmental level is called scaffolding. According to Bruner (1976, cited in Banegas, 2012), scaffolding involves structured interaction that is focused on moving learners towards their goals. It involves initially giving learners support in completing tasks that they may have difficulty with, but gradually allowing the learners to take more responsibility as they become more proficient. In the end the learners are fully autonomous and can complete the task by themselves. In the classroom, scaffolding can take the form of asking questions, activating prior knowledge, creating a motivating context, encouraging participation, offering hints, giving feedback, and adapting materials to learners' needs. While Vygotsky and Bruner specifically referred to young children in their definitions of ZPD and scaffolding, their concepts can also be applied to the learning process of older students (Ash & Levitt, 2003; Diaz-Spires, 2013; McCafferty, 2002).

In the case of my project, there is a discrepancy between what ESL speakers can do independently in the domain of health literacy and what they can potentially do with guidance from the teacher or from other ESL speakers. Early in the process or early in the duration of the

course, the teacher and other ESL-speaking peers can offer the support (contexts, activities, interaction, etc.) necessary for students to develop English language and health literacy skills. As the course progresses, the students will hopefully be able to independently apply their new language skills and health literacy skills in real-life situations to obtain and manage care for themselves or their family members.

In summary, Lave and Wenger's situated theory of learning, Michael Halliday's theory of systemic-functional linguistics, and Vygotsky's sociocultural theory form the framework for this project. ESL speakers are legitimate peripheral participants who engage in the language and health literacy practices of the health care community. To move towards full participation in this community, they need to further develop their health literacy and English language skills through engaging in practices and social interactions that are similar to those that occur in health care settings. Part of this process involves developing ESL learners' awareness of the way language is used to construe meanings and to serve different functions in the social context of health care. Finally, this project provides a tool for teachers to mediate students' progress towards full participation in the health care community and move from their current health literacy and English proficiency level to their potential level of development.

Significance of the Project

This project offers a model and materials for ESL teachers to teach English as a second language in conjunction with teaching health literacy skills. As such, it will benefit ESL teachers by providing them with resources to teach needed health literacy skills and facilitating the introduction of health literacy education into the ESL classroom.

This project is also significant for the ESL students who would be participating in the

curriculum. As a result of their increased English proficiency and health literacy, these individuals will be better able to understand medical information, instructions and treatment recommendations from health care providers. They will also have an increased ability to read, understand, and process written medical information. In addition, they will be more competent in expressing their medical concerns to health care providers. Furthermore, they will also have an easier time obtaining health services and accessing health care payment programs due to their increased ability to process information about these programs and apply for these programs. By being able to do all the tasks listed above, the ESL speakers will be more able to make appropriate health decisions to maximize their health as well as the health of any family members that they are taking care of.

This project is also significant for health care providers and the health care system in the United States. By improving the English proficiency and health literacy skills of ESL speakers who may be patients in the health care system, medical professionals will be better able to communicate with patients. There will hopefully be fewer instances of misunderstanding between health care providers and health care recipients. Patient compliance with treatment recommendations will increase since the patients will be more able to understand and process medical instructions. Furthermore, when these individuals face fewer language barriers to obtaining care, they will also hopefully seek more routine and preventative care. This decreases the incidence and severity of illnesses and decreases the inappropriate use of services such as using the emergency room as the primary source of care.

Definition of Terms

content-based ESL instruction – the concurrent study of language and subject matter, with the form and sequence of language presentation dictated by the content material (Kong, 2009).

health literacy – the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Nimmon, 2010; U.S. Department of Health and Human Services, 2000).

health literacy skills – all the skills necessary to be health literate (see definition on "health literacy"). This includes English reading, writing, speaking, and listening skills; numerical computing skills; critical thinking skills; and decision making skills (Singleton & Krause, 2009). Being able to read instructions on a medication bottle and being able to describe medical symptoms are two examples of specific health literacy skills.

CHAPTER II
REVIEW OF THE LITERATURE

Overview

For my field project, I have adopted a content-based approach to teaching health literacy in conjunction with ESL. Moreover, systemic functional linguistics and sociocultural theory have formed the theoretical framework for the lessons, activities, and materials of my curriculum. First I will discuss various initiatives to develop health literacy skills that have already been introduced in the United States. Next I will discuss some studies that have investigated the use of content-based instruction (CBI) to develop second-language skills. After that, I will describe how systemic functional linguistics have been applied within the CBI classroom to enhance second language development. Finally, I will discuss how sociocultural theory has also contributed to the teaching of language and content in CBI classrooms and ESL classrooms.

Health Literacy Education

The first section of this literature review will summarize and discuss the applicability of studies on health literacy initiatives that have been implemented in various educational settings. Most of the studies included here involve the integration of health literacy education and either ESL education or adult literacy education. I have also included one study that investigated the implementation of a health literacy curriculum with adolescents and young adults who were not ESL speakers.

In one initiative, Soto Mas, Mein, Fuentes, Thatcher, and Balcazar (2012) designed a project to evaluate the feasibility of using ESL instruction as a medium for improving health literacy among Hispanic immigrants at the United States and Mexican border. The researchers wanted to integrate health literacy with English language learning to enhance students' health

literacy as well as their language learning experiences. Therefore, they developed, implemented, and evaluated an interdisciplinary health literacy/ESL curriculum.

The study was conducted in El Paso, Texas. Prior to the development of the curriculum, Spanish-speaking students from a community GED class were interviewed about language, literacy, and the sources of health information that they utilized. The curriculum was developed through a collaborative effort between a university research team and teachers from an adult literacy program at a local community college. The research team consisted of health education, communication, and adult literacy researchers. After the curriculum was developed, it was presented to two ESL teachers and two students who provided initial feedback on the format and content. The curriculum was then piloted over a two-week period with twelve ESL students. Classes were observed and modifications were made to the curriculum. It was then implemented in a six-week course with eighty-four ESL students. Semi-structured discussions were conducted with the students at the end of the program to collect qualitative data on their experiences.

Preliminary qualitative results show that the participants were satisfied with the format and content of the curriculum. They stated that the combination of ESL and health literacy contributed to positive learning experiences. They also stated that they learned useful health literacy skills such as filling out forms, interpreting medicine and food labels, searching the Internet for health information. In addition, the student's made statements that demonstrated concrete learning with respect to health literacy and English. For example, one student's statements demonstrated that she understood her rights as patient, which was topic of one of the units in the curriculum. The researchers concluded that the health context enhanced the English learning process in addition to developing important health literacy skills.

The researchers in this study described a comprehensive health literacy curriculum that is very similar to the one that I will construct. The positive feedback and evidence of concrete learning from the interviews conducted with students is a strong rationale for integration of health literacy education and ESL education. The students of the study also identified health literacy topics, such as filling out forms and using technology to find health information, that were important. The authors also included specific portions of their curriculum in the article, which provide good examples of possible formatting and sequencing of activities for a curriculum that deals with health literacy.

Chervrin, Clift, Woods, Krause, and Lee (2012) also evaluated the effectiveness of an initiative designed to improve health literacy. However, unlike the previous study, the researchers did not develop their own curriculum and instead focused on a project that was already in place to address issues of low health literacy among students enrolled in adult basic education, GED, and ESL classes at six adult education centers. The researchers assessed for changes in learners' self-efficacy and skills in navigating the health system, managing chronic diseases, and engaging in preventative health behaviors. They also assessed for changes in teachers' abilities and the education centers' capacities to teach health literacy.

The health literacy project in this study took place at six adult education centers throughout a state in the northeastern part of the United States. The centers chosen for the study offered Adult Basic Education, GED, and ESL classes for low-income and immigrant communities. The teachers at these centers attended professional development training, purchased materials, and implemented experiential learning opportunities related to developing students' health literacy skills. Twenty teachers also participated in study circles where

participants discussed how to incorporate research related to disease prevention and screening, chronic disease management, and health care access and navigation into their adult education classes. Five hundred and sixty-five students, twenty-one teachers, and six center directors participated in the researchers' evaluation of the program. Students completed tests, questionnaires, and essays to demonstrate their heath literacy and self-efficacy levels at the beginning and at the end of the semester. Teachers completed surveys about the support they received with incorporating health literacy education into their classes. Center directors submitted progress reports and participated in phone interviews where they discussed changes in the centers' capacities to teach health literacy.

Data showed that students' knowledge of health issues, self-efficacy in advocating for their own health, and reported health literacy increased. ESL students appeared to have made the largest improvements in self-efficacy. Moreover, the teachers and center directors reported an increase in their capacity to teach health literacy. In their reports, the teachers also stated that flexibility in health literacy instruction is necessary because of different health knowledge, skills, and experiences among students. They also stated that collaboration with health professionals is also important to determine the relevancy of what is taught. The center directors identified ways to sustain health literacy instruction such as including continued professional development opportunities for teachers, continuing to engage health professionals, and creating health literacy materials and resources. At the end of the project, three-fourths of all the classes across all the centers included some type of health literacy instruction. The health literacy instruction was most frequently incorporated into the ESL classes. Moreover, each center developed ongoing partnerships with health service providers in the community.

This study shows another successful initiative to implement health literacy instruction in adult education, including ESL education. Similar to the first study, the researchers identified some important topics - chronic disease management, accessing and navigating the health system, and engaging in preventative health behavior - that a health literacy curriculum should address. Furthermore, the teachers and center directors gave important advice regarding how to teach and sustain a health literacy program.

In another study, Mackert and Poag (2011) also examined health literacy efforts among adult basic education providers. The adult education programs included GED preparation classes, adult literacy classes, and ESL classes. The purpose of their research was to investigate how adult education programs were currently including health-related topics into their curriculum. The researchers also wanted to learn about the instructional needs of learners and instructors related to health literacy.

The researchers recruited fifty-eight directors of adult education programs in Central Texas to complete online surveys. The organizations that were represented in the surveys provided ninety percent of the adult education services in Central Texas. The survey asked respondents about students' health literacy needs and the programs' existing efforts to incorporate health materials into their curricula. The respondents also reported on barriers to teaching health literacy and tools that would help them incorporate health literacy education more effectively.

The respondents reported that students had trouble navigating the health care system, communicating with doctors, filling out insurance paperwork, and identifying where to go for medical treatment. The health literacy skills that the classes addressed included interacting with doctors, taking care of sick children, reading nutrition labels, and taking medications properly. A

few classes taught students how to find health information on the Internet, how to find health care providers, and how to fill out insurance forms. Respondents identified that the most effective strategies for building health literacy were providing authentic health materials for students, having health representatives visit classes, and implementing classroom activities that dealt with real-life situations and current health topics. The respondents expressed interest in learning how to create additional classes and curricula designed to improve health literacy. They also wanted to form collaborations with health care providers. However, they stated that the centers do not always have the resources or capacity necessary to improve and develop health literacy instruction.

Similar to the other studies mentioned previously, this study identified students' most prevalent health literacy needs and effective strategies for developing student's health literacy to meet those needs. The researchers suggest that important topics for a health literacy curriculum to address are communicating with doctors, filling out health care forms, and researching the Internet for information on health issues and health care providers. Effective strategies for developing health literacy identified, such as providing authentic health materials and implementing classroom activities to emulate real-life situations, are also important to consider when devising strategies to develop health literacy among students in the classroom.

Freedman, Miner, Echt, Parker, & Cooper (2011) also investigated the effectiveness of using adult education as a vehicle to teach functional health literacy skills to populations with low literacy. However, unlike the studies mentioned above that included ESL students in addition to adult basic education native English-speakers, the population of this study consisted solely of native English-speakers who had low levels of literacy. The researchers examined a health

literacy class in the urban South that covered preventative care, disease management, communication with health care providers, and other health topics.

The researchers observed twenty hours of classes and conducted qualitative interviews with twenty-one students and three teachers at a health literacy class located in the southern United States. They also conducted a final focus group with nine students to ensure accurate interpretation of the interviews. Most of the students interviewed were female, and all the students were of African or African-American descent. Most students read at a 4th or 6th grade reading level although most had completed school through the 10th or 11th grade. All three teachers were female adults who ranged from having little formal teacher education to having an advanced adult education degree. None of them had formal training in health or medicine. The students that participated in the study were interviewed about classroom methodologies that facilitated their learning of health information. They were also interviewed about their sharing of health information with friends, family members, and other people outside of class. The teachers were interviewed about their perspectives on teaching health literacy skills and the instructional strategies that they used to create a collaborative learning environment.

The researchers concluded that the adult education system is a good vehicle for helping to develop health literacy skills in populations with low levels of literacy. Moreover, they stated that the students who attended these classes were powerful conveyors of health information to other members of the community beyond the classroom. The authors also gave several recommendations regarding methods to make the classroom an effective place to teach health literacy, to disseminate health information within low-literate populations, and to ensure the accuracy of information that is disseminated.

Successful classroom strategies for teaching health literacy according to the interviews include incorporating students' input into the planning of course content to increase students' motivation and ensure relevancy of materials. Teachers also have to foster collaborative environment where students share their knowledge and experiences so that students and teachers can learn from each other. Usually the students have valuable information about community health resources and can explain health information in plain language that is understandable to other students. Moreover, students stated that the research and development of newsletters on health topics by the students themselves increased students' motivation and aided the retention of health information.

In the study, the teachers also discussed some challenges in health literacy instruction. These challenges included lack of formal teacher training on health content, mismatch of print materials to students' reading abilities, and lack of ways to ensure the accuracy of information that students are reporting to outside community members.

One limitation of this study in relation to my project is that the population included only native-English speakers who resided in an urban area in the southern United States. However, the authors identified some classroom strategies, such as fostering a collaborative environment and incorporating students' input into content planning, for teaching health literacy to adult learners that may still applicable to ESL students. In addition, some skills (e.g., communication with health care providers), health topics (e.g., importance of nutrition and physical activity), materials (e.g., informational health brochures and hospital forms), and activities (e.g., collaborative creation of patient education materials) described are informative for the development of a health literacy curriculum. In addition, the authors also provided some reliable

websites with health information handouts for individuals with low levels of literacy.

Working with a population younger than the subjects in the previous studies and focusing solely on the use of technology to increase health literacy, Kurtz-Rossi & Duguay (2010) collaborated with public librarians, K-12 teachers, adult literacy teachers, and health professionals to develop, implement, and evaluate a curriculum designed to improve health literacy among residents in rural Maine. The curriculum's purpose was to enable students to use the Internet to search for health information, evaluate the reliability of information found on the Internet, answer health questions, and share what they learned with family members and others in the community.

This project was carried out in Oxford County, Maine. Public librarians, K-12 teachers, adult literacy teachers, health professionals, and school district health coordinators developed and implemented the curriculum. This curriculum targeted middle school and high school youth and young adults between the ages of eighteen and twenty-five. First a community assessment was conducted to identify community health needs and available health information resources and services. A health literacy consultant then developed the curriculum and trained teachers who implemented the curriculum at two middle schools, two high schools, and one adult education program. The public librarians who participated in the project were given materials from the National Library of Medicine to promote the use of reliable Web-based health information to the community. The teachers administered tests and surveys to the students before and after implementation of the curriculum to gauge changes in health knowledge, attitudes, and behaviors. One hundred and forty-one students completed the survey that was given before the start of the curriculum while one hundred and twenty-one students completed the post-

curriculum evaluation. In addition, the teachers completed feedback forms to document how they used the curriculum and any modifications they made.

After implementation of the health literacy curriculum, eighty-one percent of respondents said that they were more confident in their ability to answer health questions with the Internet. Eighty percent said that they are more aware of reliable websites for obtaining health information. Forty-eight percent of respondents said that they were confident in their abilities to evaluate health information from the Internet after participation in the curriculum, versus eighteen percent before participating in the curriculum. Moreover, sixty-five percent of student survey respondents said that they were confident that they can share what they learned about finding accurate and reliable health information with others in the community after participating in the curriculum. The teachers and librarians who responded to their feedback forms said that they felt more confident in their abilities to use health information websites and to teach health information literacy after their training. The teachers also gave feedback regarding barriers to implementing the curriculum, which included limited classroom time and inability to carry out the community-based activities.

This study focused on technology-based health literacy skills. Researching the Internet for health information and evaluating the information for accuracy is an important health literacy skill that needs to be addressed. Moreover, the study listed some good health information websites listed in the study. Furthermore, feedback from the teachers and librarians regarding barriers to implementing the program, such as the length of the curriculum and the unfeasibility of activities outside the classroom, are important to consider when developing the scope of activities for my curriculum.

On a smaller scale than any of the initiatives described in the previously mentioned studies, Nimmon (2004) tried to address low health literacy by using a participatory photonovel as a tool to educate ESL-speaking immigrant women about health information. Photonovels contain photographic stills with balloon-captioned text that is meant to give information to the reader on a topic.

The researcher worked with five immigrant women who attended an immigrant center at one of Canada's provincial capitals. The immigrant women were between thirty-five and eighty years old, and they had been in Canada anywhere from ten months to thirty-five years. They all spoke English as a second language and their English fluency was between low-intermediate to intermediate. Three were university educated and the other two were high-school educated. The project took place for two hours each week over the course of three months. For the first meeting, the women discussed their health concerns and identified nutrition as one area of concern. At the next meeting, a public health nurse came to the class and taught the women about healthy diets. During the next four sessions, the women created characters, wrote scripts, took photographs, compiled, and edited their photonovel. The author conducted individual interviews and focused group discussions before and after the project to gather information about the women's health issues and to gather feedback regarding the usage of the photonovel as a health literacy tool. In addition to the interview transcriptions, the author also took field notes during the work sessions.

In the interviews, the women gave positive comments about the photonovel and its creation. They said that the photonovel was an engaging way for them to learn about health topics. The project also aided health information retention since they were actively involved in

putting together the information to create the final product. Moreover, working together allowed the women to learn about language and health from each other. Furthermore, the visuals and the simplified language of the photonovel made the heath information accessible and understandable to low-level ESL speakers. They also expressed approval at the meaningfulness and cultural competency of this project since the characters, subject matter, and story lines were all created by the women themselves.

The small sample size is a limitation to the study. However, this study illustrated the importance and benefits of using participatory projects as a health literacy tools. Activities where students have to create their own materials helps with learning and retention of health information. In addition, the products created by the students can provide a valuable resource for other ESL speakers outside of the classroom who may not understand the language of traditional health materials. Moreover, the authors also highlighted other strategies to facilitate health literacy education. These include encouraging collaboration so that peers can learn from each other, using visuals and simplified language to aid comprehension, and ensuring cultural competence and relevancy of materials.

In summary, this section has described the research on various health literacy projects that have been implemented in several settings, primarily ESL education and adult education settings. The success of these initiatives to improve students' health literacy and improve educators' capacities to offer health literacy instruction supports further integration of ESL and health literacy education. These research studies also identified the health literacy topics and skills that are most useful to students with low levels of health literacy. These topics and skills include filling out insurance forms, communicating with health care providers, using technology to find

health information, identifying health resources, managing chronic disease, seeking preventative health care, and reading medical prescriptions and health information handouts. Moreover, the teachers and students in the studies identified important classroom strategies to facilitate health literacy education such as providing authentic materials, participating in activities that emulate real-life situations, incorporating students' input into class planning, fostering a collaborative environment so that students can learn about health from each other, and allowing students to create their own health education materials. Furthermore, some of the studies described above identified problems that may arise with the implementation of a health literacy curriculum.

Content-based Instruction and ESL Education

Content-based language instruction integrates school or academic content with language learning. Learners develop both content knowledge and language as they learn about the subject matter through their second language (Burger and Chretian, 2001). According to Corrales and Maloof (2009), "language is a medium for learning content, and content is a resource for mastery of language" in CBI. Grammar, writing skills, and vocabulary are presented in the context of learning about the subject matter. The topics and activities are relevant to the students and there is extensive use of authentic materials. Although CBI was initially used in K-12 settings in native English-speaking countries, recently there has been an increase in the use of CBI in English-as-a-foreign-language settings and university settings. To investigate the effectiveness of CBI on second language development and its applicability to my field project, this next section presents studies that have examined the effectiveness of CBI. Two of the studies focused on the effectiveness of CBI in developing oral second-language proficiency and one study focused on the impact that CBI had on students' motivation to learn.

In the first study, Corrales and Maloof (2009) investigated the effectiveness of CBI on development of English communicative competence of students enrolled in a medical English program. They were also interested in how a content-based approach enhanced the language learning process. The researchers examined the effects of CBI on students' oral English production, students' production of various types of English discourse, and students' choice of appropriate register when speaking. In addition, they examined students' affective factors related to CBI .

The study was conducted over a four month period with sixteen medical students enrolled in a medical English program at a university in Colombia. The students were between seventeen and twenty-two years of age, and they were in the fourth level of the Medical English Program. They were at various semesters in their regular academic medical program, which was conducted in Spanish. At level four, the English instruction in the Medical English Program was conducted using a content-based approach with medicine as the focus. The researchers used a qualitative, ethnographic method to examine and analyze their data. The researchers gathered data through classroom observations, student learning journals, and student interviews. In addition, four members of the class with various English proficiency levels were selected to be part of a focus group. The observations and interviews focused on these four students. The class observations included student presentations in which the researchers were able to observe students' speaking abilities.

Analysis of the class observations, class presentations, interviews, and journals indicated that students in the CBI courses were able to develop their oral discourse skills in English in addition to reviewing medical content. As students discussed medical knowledge in class, they

gradually increased their speaking skills so that they became more fluent in oral discourse. They also developed their technical lexicon, grammar, and formal register. Moreover, they learned how to organize their discourse appropriately for the topic and type of discourse. In their journals, students also mentioned developing language skills such as reading, listening, writing in addition to speaking skills.

Regarding how the benefits occurred through CBI, students stated that the materials were interesting, relevant, and meaningful for them and their medical studies, which motivated them to learn. They felt that the content they learned was useful for their current and future needs. In addition, the learners were less worried about making mistakes when speaking in class because they were more focused on expressing ideas and the emphasis was on content and not language. Moreover, since the medical knowledge included in the content-based English course was review for some students, this activated prior knowledge in the language learning process. In turn, the content based course reinforced previously-learned medical knowledge. The authors concluded that content and language learning were enhanced through CBI in this particular context.

This study supports the CBI approach to learning a second language in conjunction with subject matter. The students in this study needed to learn a specialized lexicon, grammar, and register in their content-based second language course. Furthermore, the study showed that developing language through learning relevant content increased the motivation of students. The study also showed that the focus on content lessened students' anxiety about communicating in English.

Burger and Chretian (2001) conducted a similar study on the oral production of students enrolled in adjunct, content-based ESL and French as a Second Language courses that were

linked to an introductory psychology course. The students' psychology course was conducted in the students' second language, either English or French. In the adjunct course, the focus is on the students' understanding of the content they learned in their main psychology course. Students are taught skills such as reading, writing, and creating projects to help them succeed in their academic class. They are not provided with any grammar instruction unless problems arose in the students spoken or written discourse. Although syntactic and discourse features of spoken language are not taught formally, the students are exposed to many reading and listening texts, and they have ample opportunities to practice writing and speaking in the target language.

This study took place in Canada at the University of Ottawa. The students attended this course for ninety minutes per week over a two semester (nine month) period. At the beginning and at the end of the course, an elicited imitation exercise and a discussion task based on a listening segment were administered to the students to measure gains in spoken second language proficiency. The two tasks were recorded and analyzed. The imitation task was subsequently analyzed for accuracy and presence of prosodic, syntactic, and discourse features, while the discussion task was analyzed for content, speed of delivery, pronunciation, grammatical accuracy, and precision of vocabulary. Detailed qualitative analysis was also done with the transcriptions for three ESL and three French-as-a-second-language students who showed the most gains in syntax based on the pretests and post-tests.

The students performed better on tasks at the end of the adjunct course compared with at the beginning of the course. They showed improvement in both second language oral fluency and accuracy. The ESL students made the biggest gains in terms of syntax. Detailed analysis of the transcriptions showed that the ESL students reduced the number of compound sentences and

produced more complex sentences in their speech on the post-test. They also reduced the frequency of errors such as the improper usage of the third person singular form or improper usage of the definite article. These detailed analyses gave researchers a glimpse of how morphosyntactic developments occurred for ESL students. The authors concluded that students enrolled in adjunct courses linked to an academic discipline course can make measurable gains in oral production.

This study shows that gains can be made in oral fluency and accuracy in an ESL course that is focused on content. These gains occurred through exposing students to a variety of listening and reading texts and giving them opportunities to practice speaking and writing about content. This support the use of the CBI approach and gives information about the types of classroom activities that supports oral second language development in a content-based course.

Also investigating the effectiveness of CBI, but focusing on students' motivation rather than oral language proficiency, Huang (2011) investigated the impact that CBI had on young English as a Foreign Language learners' motivated behaviors. The researchers defined motivated behaviors as paying attention, being engaged in tasks, and volunteering eagerly in the classroom. They also looked at differences in teacher-student interactions between CBI lessons and form-focused language lessons.

Twenty-five students from a private primary school in central Taiwan participated in the study. All the students were six years old and were in their first year at the primary school. There were fourteen male students and eleven female students and they all came from middle-class families. The school included form-focused English language classes, such as English spelling and phonics classes, and CBI classes, such as math and science classes taught using English as

the medium of instruction. Data was collected during the summer program at this school. The researchers observed one 45-minute CBI class and one 45-minute form-focused language class during the second week and during the sixth week of the summer program. The researchers took field notes and videotaped the four class sessions. An observation scheme was used to gather data on learners' motivated behaviors and the verbal interaction between learners and teachers in the classroom. This scheme allowed the researcher to measure student's attention, engagement, and eagerness to volunteer by tabulating various student behaviors. It also allowed the researcher to assess interaction between teachers and students in terms of the proportion of time that each spoke during class.

The researchers discovered that students seemed to volunteer more eagerly in the CBI classes than the form-focused classes. This means that the students in these classes volunteered more often to answer the teacher's questions, set up activities, or demonstrate something. However, there were marginal differences between the two classes in terms of learners' attention and engagement. In terms of teacher-student interaction, analysis of the transcripts of the video recordings showed that the students in the CBI classes spoke more often and used more complex language compared with the students in the form-focused language classes. This is consistent with the other two studies that were previously mentioned in this section of the literature review. Moreover, the teacher used more authentic communication in the CBI classes than in the form-focused classes. The authors stipulated that teachers could promote more verbal interaction among learners if they focused on meaning and content instead of form in the language classroom.

This study provides further evidence to support content-based instruction. In the study,

students were more motivated to volunteer for tasks in the CBI class versus the form-focused class. Moreover, this study shows that a content-based class gave students more opportunities to negotiate meaning and speak during class. In addition, students generated more complex language during the content-focused lessons than the form-focused lessons. Both of these points show the potential benefits of content-based language instruction.

In summary, the studies described above support content-based second language instruction. The studies show that CBI can improve students' oral proficiency as well as student motivation, which was assessed by students eagerly volunteering for tasks in the classroom. Improvement in oral proficiency included gains in fluency and accuracy. Students also used more complex language, reduced the number of errors, developed different language registers, and learned lexis related to their field of study in the content-based classes. In addition, students also learned how to properly organize their oral discourse for the situation and type of speaking that they were required to do. All of these achievements occurred through CBI because CBI increased students' motivation and lessened students' anxiety by providing them with an interesting and relevant context for language learning.

Systemic-Functional Linguistics and Content-based Instruction

In the health care settings, ESL speakers have to use language to fulfill various functions. For example, they have to be able to use the English language to express themselves to health care providers, ask for health information, or tell health service providers what needs to be done. They also have to be able to recognize the meaning and purpose of spoken or written health discourse. For example, they have to differentiate between health information and treatment recommendations. They also have to discriminate between recommendations that are merely

suggestions and recommendations that can have serious health consequences if not followed. To accomplish all the tasks listed above, ESL speakers have to be aware of the ways in which English language is used to fulfill various functions and express meaning. Studies in this section of the literature review investigates how a systemic-functional linguistic (SFL) approach can be incorporated into content-based instruction.

Schleppegrell, Achugar, and Oteiza (2004) investigated the use of functional linguistic analysis with students in content-based ESL classes to help students comprehend textbook material and develop academic English language skills. They posited that students need to be able to understand how language is used to make meaning and convey concepts in order to succeed in the academic setting. The authors of the study wanted to identify the linguistic challenges that English language learners encounter when learning history in mainstream classes and subsequently design tools that teachers could use with students to analyze history texts with the goal of developing students' content area knowledge and language awareness.

The participants of this project included California middle school and high school history teachers. The teachers signed up for three in-service summer institutes over a three-year period. At the first institute, teachers were introduced to text types and language focus. Over the course of three months after the first institute, the researchers conducted focused class observations, conducted student interviews, and analyzed the textbook in one teacher's middle school history class. The twenty-nine students enrolled in the class included four English language learners and many other low-literacy students. During the second summer institute, the researchers presented some functional grammar strategies for teachers to use with their students to interpret history texts. The teachers applied the strategies in their classrooms and gave the researchers feedback

over the course of the next school year. At the third institute, the teachers developed complete instructional units using the functional language tools.

The researchers were able to identify linguistic challenges that English language learners and students with low literacy face when reading history texts. They also developed strategies for teachers to aid the students in overcoming these challenges. Some characteristics of history texts that impede comprehension are the presentation of terms and events without elaboration, nominalization, expressing cause and effect with verbs instead of conjunctions, ambiguous use of conjunctions, and abstract generalizations. All of these characteristics of history texts are different from characteristics of the language that the students employ on an everyday basis to talk about their lives.

Based on these findings, the researchers and the teachers who participated in the summer institutes identified four areas in which teachers can conduct language analysis with their students. According to the study, teachers should guide students to analyze text to identify events, participants, the relationships between the events and participants, and the organization of all the information. This will help students grasp the content of the history text as well as understand how historians use language to convey concepts and present certain viewpoints in history.

This study illustrates some problems that ESL students face when reading complex and jargon-ladened texts. The history texts used language to convey meaning in a way that is different from how ESL speakers use it in their day to day lives. This is similar to most of the health informational texts found in the health care setting. The strategies that teachers used in the study to help the English language learners comprehend history content and simultaneously

develop language awareness are relevant. In the curriculum of my project, teachers will need to guide students to analyze texts frequently encountered in the health care setting to figure out their functions and meanings.

Mohan and Beckett (2003) also investigated the application of SFL theory to the content-based classroom, but they focused on the use of language to perform functions and realize meaning in spoken rather than written discourse. These two researchers investigated the effectiveness of meaning-focused scaffolding that teachers provided for second language learners. In other words, the teachers in this study drew students' attention to the relationships between lexicogrammatical choices and meaning during interactions instead of simply guiding students towards the production of correct grammatical structures.

The study was conducted at a university in Western Canada in a content-based ESL course. The class was designed to develop students' ability to participate in the academic courses that are conducted in English at the university. The researchers analyzed the teacher and student interactions that occurred when three students made an oral presentation to the class on the topic of the human brain. The three students were third-year exchange students from Japan whose English proficiency levels were characterized as high-intermediate. They specifically analyzed discourse in which the students were expressing causal relationships.

Analysis of the students' discourse showed that the students used a rich and sophisticated range of structures to express cause and effect relationships. The structures ranged from being very congruent, in which the relationships were expressed through conjunctions and dependent clauses, and being non-congruent, in which the relationships were expressed through prepositional phrases, adverbial groups, verbs, and nominal groups. Academic and written

English are usually less congruent and have greater grammatical complexity and lexical density than informal, spoken English. The researchers illustrated that the teacher is successful in scaffolding the students' discourse towards less congruent and more compact language characteristic of academic English. The teacher accomplished this through monitoring meaning, suggesting improvement, repairing students' difficulties, paraphrasing, and eliciting elaborations. On their part, the students elaborated meaning, checked meaning, incorporated advice, and used their own judgment during the negotiation of meaning process.

Moreover, since most of the students' utterances in the study were not grammatically incorrect, the researchers stipulated that the teachers would not have been able to help develop the students' academic second language if they had simply focused on form. They had to focus on the function of various lexicogrammatical features to move students' speech towards less congruent and more compact forms. At other times, although students' utterances were grammatically correct, the meaning was unclear. In these situations, the teachers and students had to work together to identify the proper lexicogrammatical forms to express the student's meaning.

The limitation of this study is that it is an analysis of a singular, isolated case of oral discourse and scaffolding between a teacher and three students in one classroom. However, this study illustrated ways in which teachers can draw students' attention to the way the lexicon and grammar can be used to realize meaning in the second language learning environment. In the health care setting, ESL speakers may have trouble conveying meaning to health providers (e.g. describing symptoms) to meet their health needs. Drawing students' attention to the relationship between how English language can be used to realize meaning will help students communicate

with their health care providers. The study also identified specific, useful techniques such as eliciting, elaborating, paraphrasing, and monitoring used by the teachers to negotiate meaning and to develop the learners' second language.

Also employing an SFL perspective, but focusing on how different activities encourages the use of different language functions from learners, Llinares and Patrana (2013) analyzed primary and secondary students' performance of communicative functions in whole-class and group discussions. They also compared the use of communicative functions across different educational levels.

This study took place in the middle-class suburbs of Madrid, Spain. The researchers studied whole-class and group-work discussions from primary (year 2) and secondary (year 8, 9, 10, and 11) content and language integrated learning classrooms. The classes were social science, either geography or history, and English was used as the medium of instruction. Most of the students had been in the content and language integrated learning program since their first year of school. There were seventy-five primary school students, eighty-one secondary school students, and six teachers who took part in the study. Group discussion sessions and whole-class discussion sessions were carried out at each grade level. For the group discussions, four groups each consisting of four to six students were randomly selected to participate at each grade level. For the whole-class discussions, the teachers led the discussion within their classrooms. In both the whole-class and small-group discussions, the participants discussed a topic that was already being studied in the class. A prompt including discussion questions on the topic was used for both the group discussions and the class discussions. The prompt encouraged students to talk about facts and give opinions related to the topic. All the sessions was video recorded and

transcribed. The researchers first analyzed the data quantitatively by assessing the frequency of communicative functions performed in the whole-class and the group-work discussions. The researchers then analyzed the data qualitatively by examining extracts from the transcriptions and recordings.

The results of the study showed that students used language to realize a wider variety of communicative functions in group-work than whole-class discussions. In the group-work sessions, the students used the second language to perform heuristic, regulatory, informative, and personal functions. In the whole-class sessions, the students mostly used the second language to perform informative functions. The authors concluded that students have the opportunity to use language to fulfill a wider range of functions if they are encouraged to participate in group activities rather than whole-class discussions. Moreover, there were differences in the use of language functions between different grade levels. During group-work, the secondary school students used language to perform the personal function more often than primary school students, while the primary school students used the regulatory function more often. In other words, the secondary students primarily used language to evaluate and express opinions about the discussion topic, while the primary school students used language to organize the activity and control other students' actions.

This study showed the importance of group activities. Students were able to perform a wider array of communicative functions with the second language if they are allowed to work in groups instead of simply participating in whole-class activities with the teacher. Since ESL speakers have to use English to fulfill a wide range of functions, not just the informative function, to meet their health needs, encouraging group work is necessary for them to develop

and practice these communicative functions.

To summarize the findings from this section of the literature review, analysis of written and spoken texts with a focus on how language is used to perform functions and create meaning is necessary for ESL speakers to develop the language awareness required to comprehend and communicate complex content information. Therefore, teacher guidance in the health literacy classroom should be focused on the meaning and function of language rather than simply language form. The studies also identified specific ways for teachers to help students focus on the function and meaning of language. These strategies include eliciting, elaboration, paraphrasing, and monitoring meaning. Moreover, the studies show that classroom activities should be structured to include many group activities so that students can develop and practice using the English language for a wide array of functions. In the health care setting students will most likely need to use the language to perform diverse functions.

Sociocultural Theory and Second Language Education

This next section of the literature review investigates the practical applications of sociocultural theory in the second language classroom.

Gibbons (2003), investigated how teacher-student talk in two content-based science classrooms contributed to students' language development. Their study showed how teachers mediated between students' every-day English language abilities and the academic English discourse of the field of science. The study focused on how teachers can support students to develop less context-dependent language to master the more formal registers of science.

The author conducted her study in two mainstream science classrooms in Australia. The classes consisted of sixty 8 to 9-year-old students. More than ninety percent of the students were

ESL speakers. One of the teachers had previously worked as an ESL teaching consultant, and the other had participated in professional development classes that focused on how to teach ESL students. Data was collected over the course of one unit, which included seven to eleven lessons of forty to fifty minutes each. The researcher recorded and transcribed the discourse, took field notes, and interviewed teachers and students. For the duration of this research, the teachers planned activities on the topic of magnetism. The students first did an experiment in small groups using magnets and other materials. They then reported their findings from the experiment to the rest of the class with the help of the teacher. Finally, they wrote a report in their science journals. The activities were designed and sequenced in a way to move students' from using their everyday English to using academic discourse to describe science concepts. The researcher focused on the second stage of the experiment in which teacher and students co-constructed the formal register of science through reports to the class regarding their findings from the small group activity.

The data showed that through mediation, students' discourse was transformed from the discourse they use in everyday situations to the specialist discourse of science. They developed this new academic register through participating in the mediation sessions. The study showed that in order for interactions to be effective in developing language, teachers and students both have to be active participants in co-constructing the language and the knowledge. In the study, teachers mediated student's language development through recasting the students' statements, signaling to students how to reformulate statements to fit the academic science register, simply indicating the need for reformulation, and re-contextualizing personal knowledge within the general concepts of science. The last three techniques seemed to be more effective for

developing students' language than the first technique, recasting the students' statements.

This study provided good examples of how the teachers can mediate between ESL students' common English discourse and the discourse that is employed in specialist fields. Health care is one such field in which participants utilize a unique register of speech to receive and communicate health information. Students will need to adopt the register of speaking and writing utilized in health care settings, which may be unfamiliar to them. The study also showed that students need to be co-participants in constructing the language to more effectively learn the language. Therefore, guiding students to reformulate their own discourse is more beneficial than simply reformulating the discourse for them. In the classroom, teachers and students need to collaboratively develop the language necessary to meet students' needs.

Rassaei (2014) conducted a study that led to similar conclusions regarding roles of students and teachers in negotiation of meaning sessions. He investigated and compared the effects of scaffolded feedback and recasts on second language development. Scaffolded feedback engages learners to self-correct through negotiation with the teacher, while recasts are simply reformulations of learners' errors into the correct form. For the study, the researchers examined the effects of both types of error correction on students' acquisition of English wh~ question forms.

The study population included eighty-two Persian English as a Foreign Language learners who attended intermediate-level EFL classes at a language teaching institute in Iran. The average age of the learners was 23.2, and they were all con-currently enrolled in a university or had already graduated from a university. There were forty-three females and thirty-nine males in the study. The students had studied between four to six years of English. The students were

randomly assigned to one of three groups: a control group that received no feedback during a task-based activity, an experimental group that was exposed to recasting as the method of error correction during the activity, and another experimental group that was exposed to scaffolded feedback for their errors during the activity. The task involved finding differences between a set of pictures with an interlocutor using the wh~ question form. The learners in the recast group received an average of eight instances of corrective feedback during each session, and each session lasted an average of seventeen minutes. The learners in the scaffolded feedback group received an average of seven and a half instances of scaffolded feedback during each session, and each session lasted an average of twenty-four minutes. The learners in the control group received no feedback, and each session lasted an average of fourteen minutes. The activity sessions were videotaped analyzed. Before and after the activity, an untimed grammar judgment test and an oral production test were administered to gauge learners' achievements in acquiring the target wh~ question form.

The results of the study showed that the learners who were exposed to recasts or scaffolded feedback outperformed the learners in the control group who did not receive any type of corrective feedback. However, the learners who were exposed to scaffolded feedback group outperformed the learners who were exposed to recasting of errors. The researcher suggested that scaffolded feedback resulted in higher levels of second language development because it engages the learner, allows for negotiation of meaning, is attuned to learners' needs, and is oriented towards their zone of proximal development. The researcher concluded that collaborative negotiation should be employed for error correction in addition to general communication within the classroom.

Similar to the previous study discussed in this section, this study provides evidence to support collaborative effort between language learners and teachers to develop second language through negotiation. This indicates that ample opportunities for ESL speakers and teachers to negotiate meaning should be incorporated into lessons. Moreover, error correction and feedback during classroom activities should be structured in a way to allow students to self-repair their discourse.

Anton (1999) also conducted a study that supported involving learners in the language construction process. He examined two classes to compare a learner-centered approach and a teacher-centered approach to interactions in the second language classroom.

This researcher observed a first-year university-level French class and a first-year university-level Italian class throughout one semester. The types of activities and the interactions of the Italian class showed that it has all the characteristics of a teacher-centered approach, while observations of the French class showed that it has all the characteristics of a learner-centered approach. The author observed the two classes and analyzed transcripts of the discourses that occurred in the classes.

The researcher described differences between learner-centered communication and teacher-centered communication in terms of formal instruction (i.e., presenting language and answering student's questions about language), providing feedback (i.e., error correction), allocating turns (i.e., deciding who speaks and how in the classroom), and identifying learning preferences and strategies. Discursive strategies that can be employed to achieve a learner-centered environment include reflecting questions, guiding students to figure out the meaning and structure of the language through negotiation, encouraging students to correct their own

errors, allowing students to negotiate classroom rules, and letting students identify their own language problems and solutions. The study showed that learner-centeredness involves more than just implementing group activities. It can also be realized through the interactions that occur between teachers and students. Through these interactions, students can work with teachers and with other students to negotiate meaning, language forms, classroom rules, and learning strategies successfully. This promotes students' participation in the class and may aid second language learning.

This study showed some specific ways in which teachers can engage students in learner-centered discourse that is conducive to students' language development. This include reflecting questions, guiding students to figure out the meaning and structure of language for themselves, encouraging students to self-correct, and allowing students to identify their own language problems and solutions. Activities and interaction in the classroom should be structured in a way to achieve learner-centeredness rather than teacher-centeredness to maximize language development.

All the studies described above provide evidence that a learner-centered approach to interactions within the second language classroom is conducive to second language development. Opportunities for students to negotiate meaning with teachers and other students are necessary for students to effectively develop their second language. This holds true for different types of classroom communication including student presentations and reports, error correction, formal instruction, and determining class rules and activities. In alignment with the findings from this research, activities in the health literacy curriculum should provide ample opportunities for students to negotiate meaning with teachers and peers. Activities and feedback sessions should

be designed to scaffold students' language development in a learner-centered way.

Summary

The research on various health literacy initiatives that have already been implemented in the United States gave me invaluable information regarding topics and skills that ESL learners identify as important to include in a course on health literacy. These topics and skills include filling out forms, using technology to find health information and health resources, interpreting medicine and food labels, communicating with doctors, managing chronic disease, and engaging in preventative health behaviors. These studies also provided examples of curriculum formats, lesson structures, materials, and teaching strategies that are effective for developing health literacy. One of the studies showed the importance of using authentic health materials and structuring classroom activities to emulate real-life health care scenarios as much as possible. Visuals and simplified language were also important for comprehension of health content. Another study emphasized the importance of incorporating students' input into the planning of health content in order to increase motivation and ensure the relevancy of the curriculum to students' lives. In addition, multiple studies showed the benefits of student's sharing health knowledge with each other and working collaboratively to create health information materials. Possible barriers to teaching health literacy were also identified in these studies. These barriers include lack formal teacher training on health content, mismatch of authentic health information materials to students' reading abilities, and lack of resources.

The other research studies included in my literature review provide concrete examples of how CBI, systemic functional linguistics, and sociocultural theory can be applied within the field of second language teaching to effectively develop students' second language proficiency. These

studies have implications for the selection of teaching methodologies, lesson formats, and materials for my curriculum.

The studies on CBI show that gains in second language proficiency and content knowledge occur through exposing students to a variety of listening and reading texts and giving them opportunities to speak and write about content. The relevancy and meaningfulness of CBI facilitated learning, increased students' motivation, and lessened communication anxiety.

However, teachers have to facilitate learners' communication and understanding of the content through scaffolding with a learner-centered approach. Teachers need to guide students to analyze texts in order to figure out their purpose and meaning. Teachers also need to scaffold learners' development of the target oral register by monitoring meaning, suggesting improvement, paraphrasing, and eliciting elaborations during communication. Techniques where the students have more responsibility for producing and repairing the language is more beneficial than techniques where the teacher simply provides the target language.

In general, the studies show that learner-centered communication is more beneficial than teacher-centered communication. Specific discourse strategies to achieve learner-centeredness involve reflecting questions, guiding students to figure out the meaning and structure of language, encouraging students to correct their own errors, allowing learners to negotiate rules and learning preferences, and letting students identify and solve their own language difficulties.

Moreover, when scaffolding, a focus on function rather than form is necessary because students need to learn how to use language to fulfill various functions and effectively convey meaning in real-life situations. Finally, group-work is more beneficial than whole-class discussions for developing students' ability to use language functionally and meaningfully.

CHAPTER III
THE PROJECT AND ITS DEVELOPMENT

Description of the Project

This project is a curriculum designed to teach English-as-a-second-language speakers health literacy skills in conjunction with ESL using various health topics as the content of instruction. This curriculum is designed to be implemented by teachers working with adult ESL speakers in various community-based ESL programs. This course will be helpful for ESL speakers who have difficulties managing their health care due to limited ability to access, understand, or apply health information through English.

This project is composed of seven health literacy/ESL instructional units. Each unit covers a general domain of health literacy. The first unit deals with verbal health communication, the second unit involves identifying community health resources, the third unit covers printed health information, the fourth unit includes medication and nutrition information, the fifth unit covers health care forms, the sixth unit touches on preventative care, and the seventh unit goes over the language for calling for emergency health services. The content objectives, language objectives, and student outcomes for each unit are listed in the curriculum overview.

Each unit is further divided into one to four sections. There are twenty sections in total, and each section consists of a 90-minute class that covers a specific health literacy skill. The lesson plans, teacher resources, and student handouts for five lessons are included in this project. This includes two lessons from unit one, one lesson from unit three, one lesson from unit four, and one lesson from unit five. Teachers can choose to implement the health literacy curriculum in its entirety, utilize one unit within a more generalized ESL class, or follow one individual lesson plan to conduct one class on a specific health literacy skill.

Development of the project

In my experiences teaching ESL within various community programs, I have been exposed to the difficulties that ESL speakers in this country face when trying to obtain and understand health information and trying to navigate the health care system. Students sometimes tell stories of the problems they encounter in the health care setting because of language barriers. For example, when one student took her husband to the emergency room, she had trouble understanding what the medical professionals who were treating her husband were saying to each other and to her. In addition, students often bring letters from insurance programs or from health care providers for me to interpret. Furthermore, when I conduct needs assessments at the beginning of each semester with the students in one of my ESL classes, the students always indicate that they want to learn the language necessary for going to the health provider's office or the language necessary for obtaining emergency medical services. In summary, the ESL students that I have taught in the past have identified the language associated with health literacy as an important part of the ESL curriculum.

Moreover, through working in the clinical setting, I have witnessed the difficulties that individuals with limited English proficiency encounter when trying to communicate with health care providers, read health education handouts, and understand medication instructions. At one of the clinics where I worked, we didn't have any certified translators and would rely on bilingual staff members for communication with patients who did not speak English well. However, sometimes the staff member who spoke a particular language would not be available. Moreover, we had some clients who spoke languages that nobody on the staff spoke. During my rotations in the hospital setting, I printed many pages of discharge instructions for patients to take home

following their hospital stays. Although we had computer or in-person translation when giving verbal discharge instructions to patients who did not speak English well, the discharge handouts were only available in English and Spanish. So for patients who spoke another language, such as Tagalog or Russian, I would always wonder if they would remember all the verbal discharge instructions that we gave them on the last day of their hospital stays. In summary, translation services and bilingual resources in the clinical setting for patients who cannot understand or speak English well are sometimes inadequate for communicating important health information.

Furthermore, throughout my adult life, I have accompanied my two parents who do not speak English well to numerous medical appointments where translation services and simplified English health information were inadequate or unavailable. At my father's primary care clinic, there is one translator for Vietnamese, Mandarin, and Cantonese-speaking patients. On some visits, the translator is running between multiple exam rooms translating for multiple patients. Although my mother goes to a clinic where the entire staff is able to communicate in her native language, the dosage and frequency instructions on the prescription medication bottles are only written in English. She often forgets the verbal instructions from the doctors and pharmacists and has to ask me to translate the directions on the bottles for her at home. The last time my father was in the hospital, there weren't any translation services. He understood some of what the nurses and doctors said, but he also relied on my me and my brother for communication. My parents' experiences in the health care environment are similar to the experiences of the ESL students that I have taught and the experiences of the ESL-speaking patients who frequented the clinic and hospitals where I have worked.

As I have illustrated above, translation services are often absent or inadequate in the

health care setting due to lack of resources. Written health information such as discharge instructions, prescription information, and health-related educational handouts are not always available in multiple languages. We definitely need to improve the health care system in the United States to better serve the people whose native language is not English, but it is also important to empower ESL-speakers to take a role in managing their health through increasing health literacy and English proficiency.

To create the actual project, I first determined the health literacy topics and skills that were important based on the literature review, conversations with ESL students, and my own experiences working in the clinical setting. I designated one unit of my curriculum for each domain of health literacy that I have chosen to include in my project. I divided each unit into one to four sections, with each section covering one specific health literacy skill related to the theme of the unit. Next, I established the language and content objectives as well as the student outcomes for each unit. Subsequently, I chose five classes from the curriculum and developed the lesson plans and associated student handouts for these classes. I chose these five classes based on the importance of the health literacy skill that was covered in these lessons. These five classes were also diverse enough to give a good overview of the whole curriculum.

The Project

Health Literacy and ESL Curriculum Matrix

Each unit of this ESL/health literacy curriculum covers one domain of health literacy. The content objectives, language objectives, and outcomes for each unit are listed below. Each unit is further divided into one to four sections. Each section focuses on a specific health literacy skill. Each section includes a lesson plan and the materials for one 90-minute class period. There are seven units and twenty lessons in total.

Unit Topic and Lesson Topic	Content Objectives	Language Objectives	Outcomes
Unit 1: Verbal Health Communication **Lesson 1:** Describing Symptoms – Body Parts and Pain **Lesson 2:** Describing Symptoms – Common Symptoms **Lesson 3:** Giving a Verbal Medical History **Lesson 4:** Asking for and Receiving Verbal Health Information	Express and describe pain Describe medical symptoms Verbalize medical diagnoses and medical histories Ask for and receive health information and recommendations	Vocabulary of various body parts Vocabulary of common health symptoms Possessive pronouns to talk about body parts Adjectives to describe pain Vocabulary of some common medical conditions Use “have/has” and “feel” to describe medical symptoms Use “have/had” to talk about medical diagnoses and medical histories Articulate wh~ questions to ask for	Students will be able to... articulate medical symptoms answer questions about their medical diagnoses and their medical histories ask questions about health information and treatment recommendations

Unit Topic and Lesson Topic	Content Objectives	Language Objectives	Outcomes
		information about health conditions Use modals to give health advice Employ turn-taking in conversation	
Unit 2: Community Health Resources **Lesson 1:** Identifying Community Health Providers **Lesson 2:** Identifying Sources of Health Information	Identify and share health resources that they currently utilize Use the Internet to find community health providers Use the Internet to look for health information Identify reliable sources of health information on the Internet Compile a list of health providers and health information resources appropriate for ESL-speakers in their community	Use "there is/are" to describe existence of community health providers Use the simple present to describe community health resources Use conjunctions to enter search queries on the Internet	Students will be able to... identify community health providers use reliable websites to obtain health information use the Internet to look for health information and health providers
Unit 3: Printed Health Information **Lesson 1:** Health Information Handouts and Brochures	Read and analyze various health information handouts and brochures Read and analyze written discharge information Read and analyze the Patient's Bill of Rights	Read information and facts in the simple present tense Read health information that uses the modal "can/could" to express possibility Read health instructions	Students will be able to... read health education handouts and brochures read discharge instructions

Unit Topic and Lesson Topic	Content Objectives	Language Objectives	Outcomes
Lesson 2: Creating Health Education Materials for Other ESL speakers **Lesson 3:** Discharge Information **Lesson 4:** Patient's Bill of Rights	Create health information handouts or brochures on health topics of their choosing for fellow ESL speakers	that employ the imperative Read health recommendations that employ modals of advice	name their rights as patients in the health care system educate ESL-speaking family members and acquaintances about various health conditions using health education handouts or brochures that they have created
Unit 4: Medication and Nutrition Information **Lesson 1:** Medication Labels **Lesson 2:** Medication Information Handouts **Lesson 3:** Nutrition Information	Read, analyze, and interpret medication labels and informational handouts Read, analyze, and interpret nutrition labels Use the Internet to look for medication and nutrition information	Vocabulary related to numbers and time Time expressions of frequency Vocabulary related to medications Follow directions that are given using the imperative form Vocabulary related to nutrition Understand the first conditional to read information given on medication information handouts regarding when to contact the health provider Review the use of modals to express possibility and give	Students will be able to... interpret medication labels verbalize and demonstrate accurate dosing information read medication informational handouts interpret nutrition labels look for information about medications and nutrition on the Internet

Unit Topic and Lesson Topic	Content Objectives	Language Objectives	Outcomes
		advice in medication information handouts	
Unit 5: Forms **Lesson 1:** Registration and Health History Forms **Lesson 2:** Medical Procedure Consent Forms **Lesson 3:** Insurance Forms	Fill out registration and health history forms Read and analyze information on medical procedure consent forms Fill out insurance forms	Answer written yes/no questions Demographic information Vocabulary of various medical diagnoses and procedures Vocabulary related to medical insurance Use of present simple on medical procedure consent forms Use of passive voice on medical procedure consent forms	Students will be able to... fill out registration forms with their personal information fill out forms about their current medical diagnoses and health history read and fill out medical/surgical procedure consent forms fill out insurance forms
Unit 6: Preventative Care **Lesson 1:** Nutrition **Lesson 2:** Exercise **Lesson 3:** Routine Primary Care Visits and Health Screenings	Learn about good nutrition and healthy diets Identify how they can improve their diet Learn about different forms of exercise Create an exercise regime Learn about routine primary care visits and common health screenings	Use modals of advice to give and receive exercise and nutrition advice Use the simple future to talk and write about an exercise routine that they will engage in regularly Use the modal "can/could" to express possibility	Students will be able to... verbalize components of a healthy diet and change their diet accordingly identify various forms of exercise and create an exercise regime for themselves identify the recommended frequency of

Unit Topic and Lesson Topic	Content Objectives	Language Objectives	Outcomes
			primary care check-ups and various health screenings identify appropriate health screenings for their age group
Unit 7: Medical Emergencies **Lesson 1:** Calling for Emergency Medical Services	Call for emergency medical services.	Vocabulary for family members Vocabulary for various medical emergencies Use the present progressive to describe current emergency situations	Students will be able to call for emergency medical services

Lesson Plan Guide

For each lesson, the duration, content objectives, and language objectives of the lesson are listed at the top. This is followed by the topics of the previous and next lessons. Each stage of the lesson is listed in the first column of the table. The stages include warm-up activities, introduction of language and skills, and practice activities for students. The stages differ from lesson to lesson depending on the specific health literacy topic that is being addressed.

The "procedure" column gives detailed step-by-step directions on how to carry out each activity. The "interaction" column indicates how the students and the teacher should work together to implement each activity. The interactions are structured as whole-class, pair, or group activities. Group activities involve groups of either three or four students. For the pair and group activities, teachers should group students in a way to facilitate speaking among the students of the group. For example, for activities that require students to talk about prior health care experiences, it is beneficial to partner students who have more experience navigating the health care system with students who have less experience. That way students can share their knowledge and experiences with one another. In other cases, when discussing personal health matters, the teacher should let students chose their own groups to ensure that students feel comfortable speaking in their groups. Furthermore, in classrooms where some students speak the same first language, it may be helpful for these students to work together on activities that require utilization of prior knowledge. This includes many of the vocabulary introduction activities and the warm-up activities in which students have to talk about prior health experiences using language that they may not be familiar with in English. This way, students can use their first language to communicate. Later in the lesson, after students practice the language forms that

are introduced in class, they should work in groups that are more heterogeneous in order to interact with different students and to practice the second language more extensively.

The “materials” column lists the handouts and realia that is needed for each activity. Each handout is identified by the unit number, the lesson number, and the sequence of the handout within that lesson. For example, Handout 1.2.2 refers to the second handout for Lesson 2 of Unit 1. The handout number can be found in the upper left hand corner of most of the handouts.

Finally, the “time” column indicates the approximate duration of the activity within a ninety-minute lesson. Modifications to the time may be needed depending on the actual amount of class time and the exact English proficiency level of the students. Finally, at the end of each lesson, there is a formative assessment for gauging whether the students have obtained the objectives of the lesson. This formative assessment usually involves observation of one of the speaking activities or evaluation of students' written work from one of the activities.

Unit 1: Verbal Health Communication

Lesson 1: Describing symptoms – Body parts and pain

Time: 90 minutes
Content Objectives: Express and describe pain
Describe health symptoms
Language Objectives: Vocabulary of various body parts
Possessive pronouns to talk about body parts
Adjectives to describe pain
Previous Lesson: None
Next Lesson: Describing Symptoms – Common Symptoms

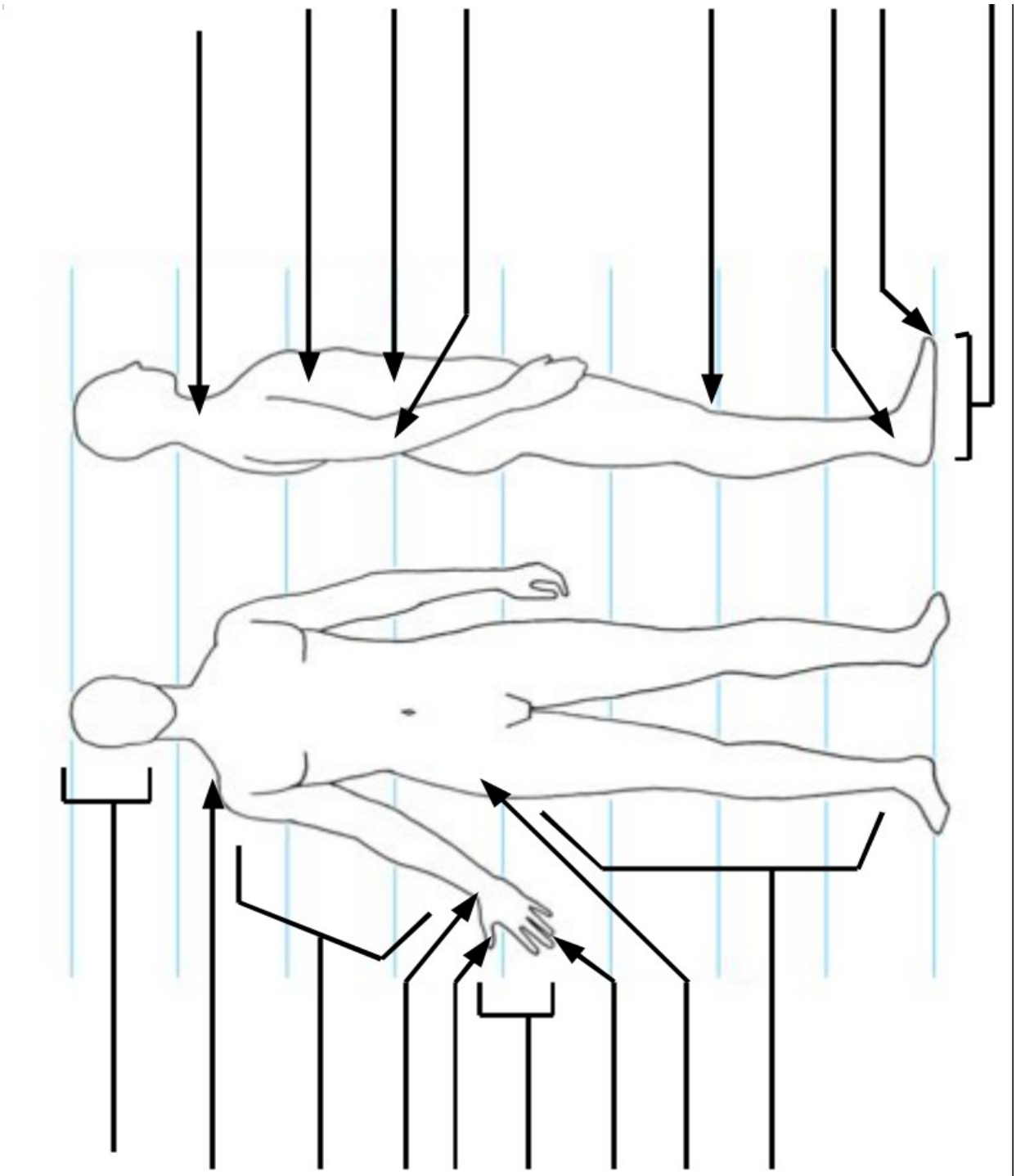
Stage/ Aim	Procedure	Interaction	Materials	Time
Warm-up	Students try to name as many body parts as possible. Teacher writes the names of these body parts on the board.	T-Ss (whole class)	Whiteboard	1 min
Presentation of body parts vocabulary	In groups, students label a picture of the human body and a picture of the human face to the best of their ability. Students and teachers work as a class to label a large print-out of the human body and a large print-out of the human face.	S-S (groups of four) T-Ss (whole class)	Handout 1.1.1 of the human body Handout 1.1.2 of the human face A large print-out of the human body *(Handout 1.1.1 printed on a large piece of paper)* A large print-out of the human face *(Handout*	20 min

			1.1.2 printed on a large piece of paper)	
Review of body parts vocabulary	Students practice identifying body parts in pairs. 1) Student A flips over a card with a picture of a body part without showing the card to his/her partner. Student A says the body part to his/her partner. 2) Student B points to the body part on his/her own body. 3) Repeat procedure for all the cards. 4) Students switch roles in their pairs.	S-S (pair-work)	Handout 1.1.3 and Handout 1.1.4: cards with pictures of body parts	10 min
Warm-up	1) Teacher ask students for the definition of "hurt" and "pain". 2) Teacher demonstrates use of possessive pronouns by miming back pain and then saying "My back hurts". Then points at students and says, "His back hurts," "Her back hurts,"or "Their backs hurt." 3) Students look at pictures of people experiencing pain in different body parts and describe what is happening to each person in pairs. They label the pictures with the appropriate type of pain (e.g. "Her head hurts", "Her jaw hurts") 4) In pairs, students also talk about whether they have ever experienced the same kinds of pain.	T-Ss S-S (pair-work)	Handout 1.1.5 with pictures of people experiencing pain in different body parts	10 min
Presentation of language used to ask about and describe pain	1) Students watch one of the following video clips of a patient describing pain to a health provider *(The audio for the second clip is clearer, more straight-forward, and includes subtitles. However, the*	Individual	Video of a conversation between a patient and a doctor	20 min

	second clip does not visually show the interaction between the patient and health provider.) *URL for first video clip: https://www.youtube.com/watch?v=_x5-2bLHO1k* *(Play the video clip from 2:00 min to 3:00 min)* *URL for second video clip: https://www.youtube.com/watch?v=3Cfrj-RJSuo* 2) In groups and then as a class, students name the problem that the patient in the video is experiencing. 3) Students watch the video clip again and jot down the questions that the health provider asks. 4) Students compare the questions that they wrote down in groups. 5) Each group reads out-loud one question that they wrote down. Teacher writes these questions on a large piece of paper on the wall.	S-S (groups of three) T-Ss (whole class) Individual S-S (groups of three) T-Ss (whole class)	A large piece of blank, white paper	
Presentation of the pain scale and adjectives to describe pain	Students draw lines to match faces and adjectives (mild, moderate, severe) to different numbers on a pain scale In groups, students match adjectives to describe pain with definitions (tender,	Individual S-S (groups of	Handout 1.1.6 with numerical pain scale, faces, and adjectives describing the severity of pain Handout 1.1.7 with	15 min

	cramping, tingling, numbing, crushing, burning, aching, sharp, throbbing, constant, intermittent). Students can use the Longman Dictionary if necessary. To check answers, each group reads out one adjective and its definition.	four) T-Ss (whole class)	more adjectives to describe pain Longman's dictionary (book or online)	
Role-play	Students role-play a dialogue between a health provider and a patient who is experiencing pain. 1) Student A plays a health provider and asks questions about pain. Student refers to the questions from the class poster that was created during the video activity. 2) Student B flips over one card depicting a body part, another card with a number expressing the severity of pain, and a third card with adjectives to describe the nature of pain. 3) Student B answers Student A's questions according to the information on the cards. 4) Students switch roles 5) Each pair demonstrate one short dialogue to the rest of the class.	S-S (pair-work)	White cards with pictures of body parts *(Handout 1.1.3 and Handout 1.1.4 from earlier in the lesson)* Handout 1.1.8: green cards with numbers expressing pain severity Handout 1.1.9: yellow cards with adjectives to describe the nature of pain *(print each set of cards on different-colored paper)*	15 min
Formative Assessment	Teacher's observation of student's role-play describing pain to a health care provider.			

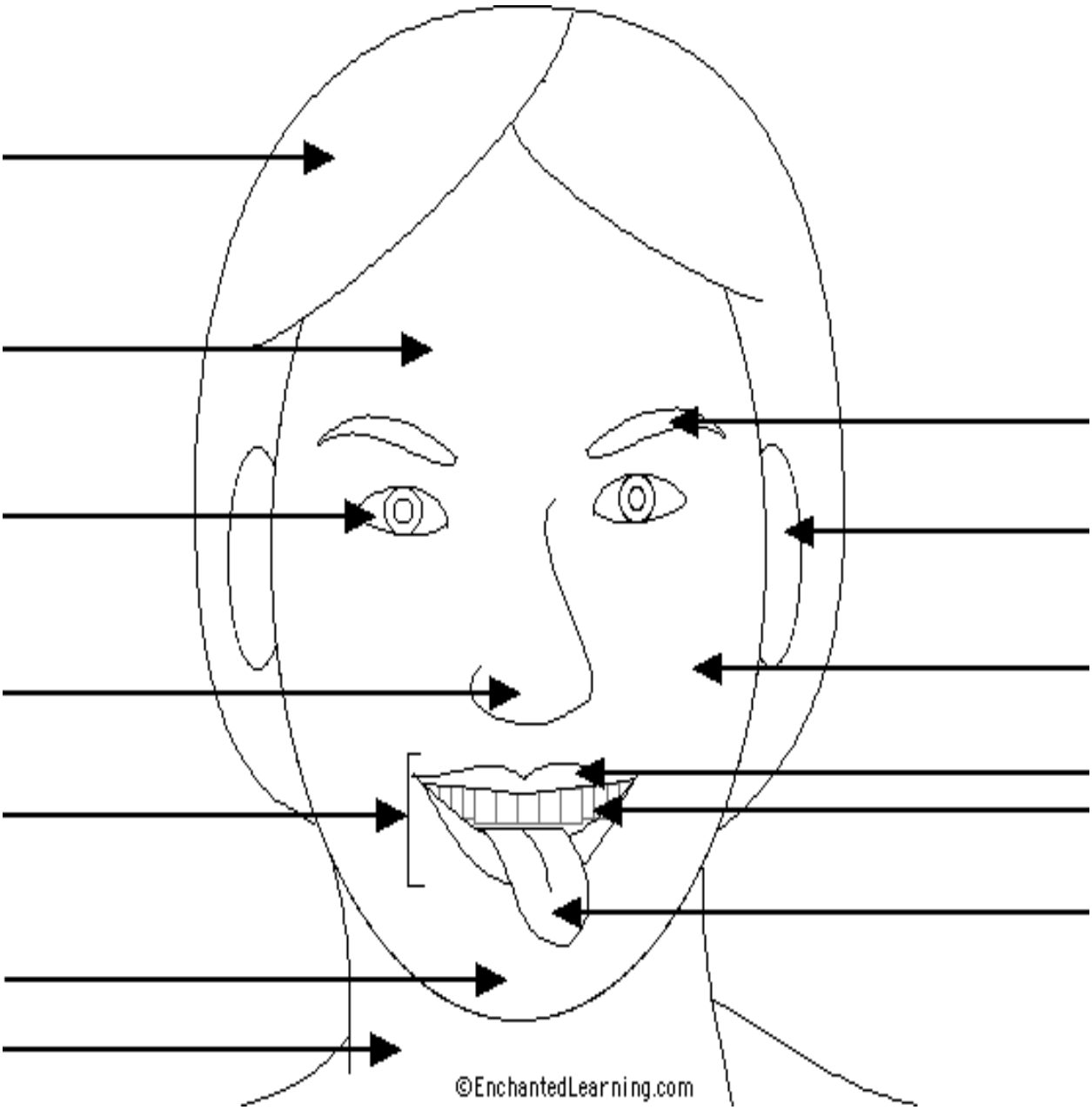
Handout 1.1.1



Proportion of human body. Retrieved on November 17, 2014 from http://hippie.nu/~unicorn/tut/xhtml/

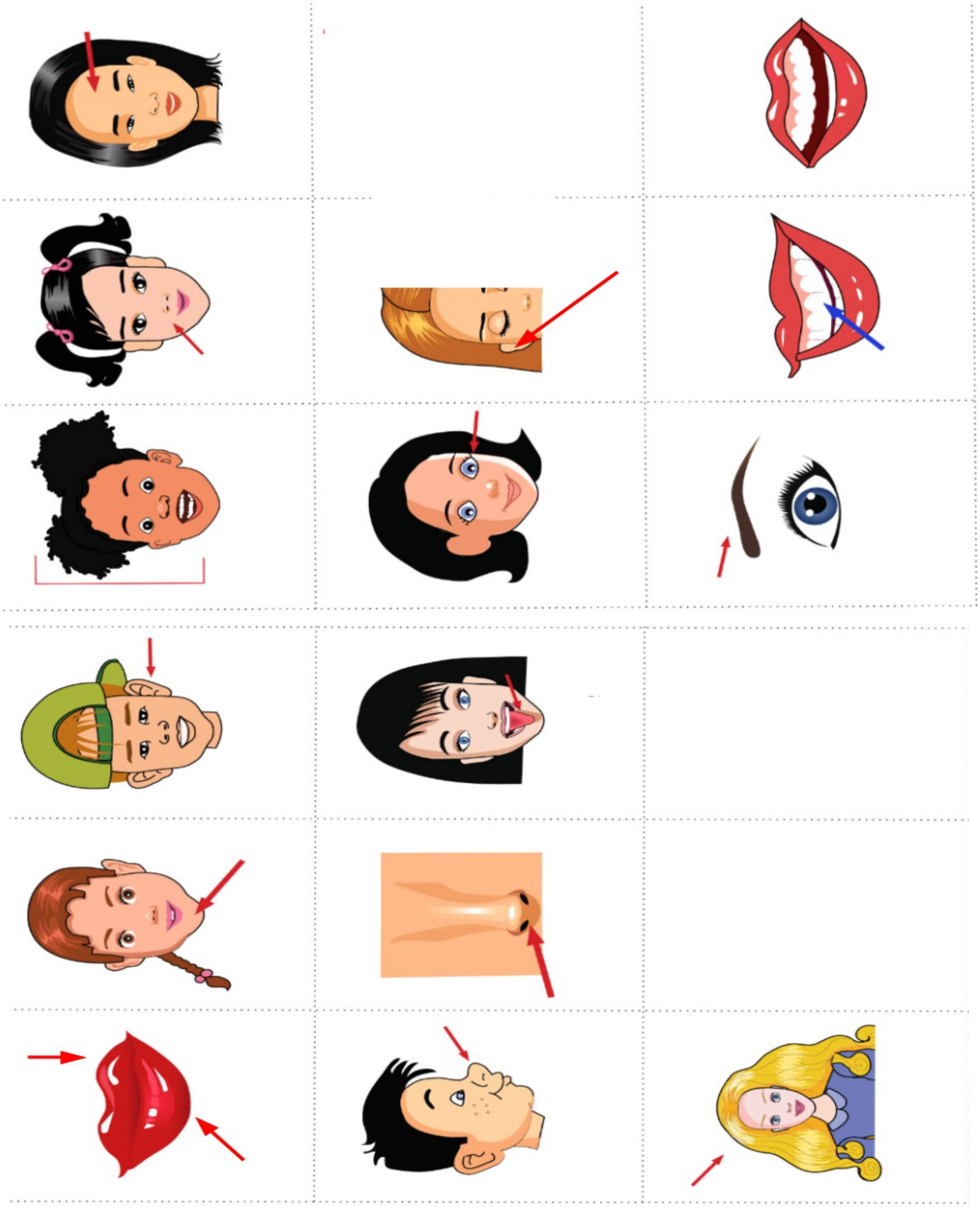
Handout created by Lee D. (2014).

Handout 1.1.2



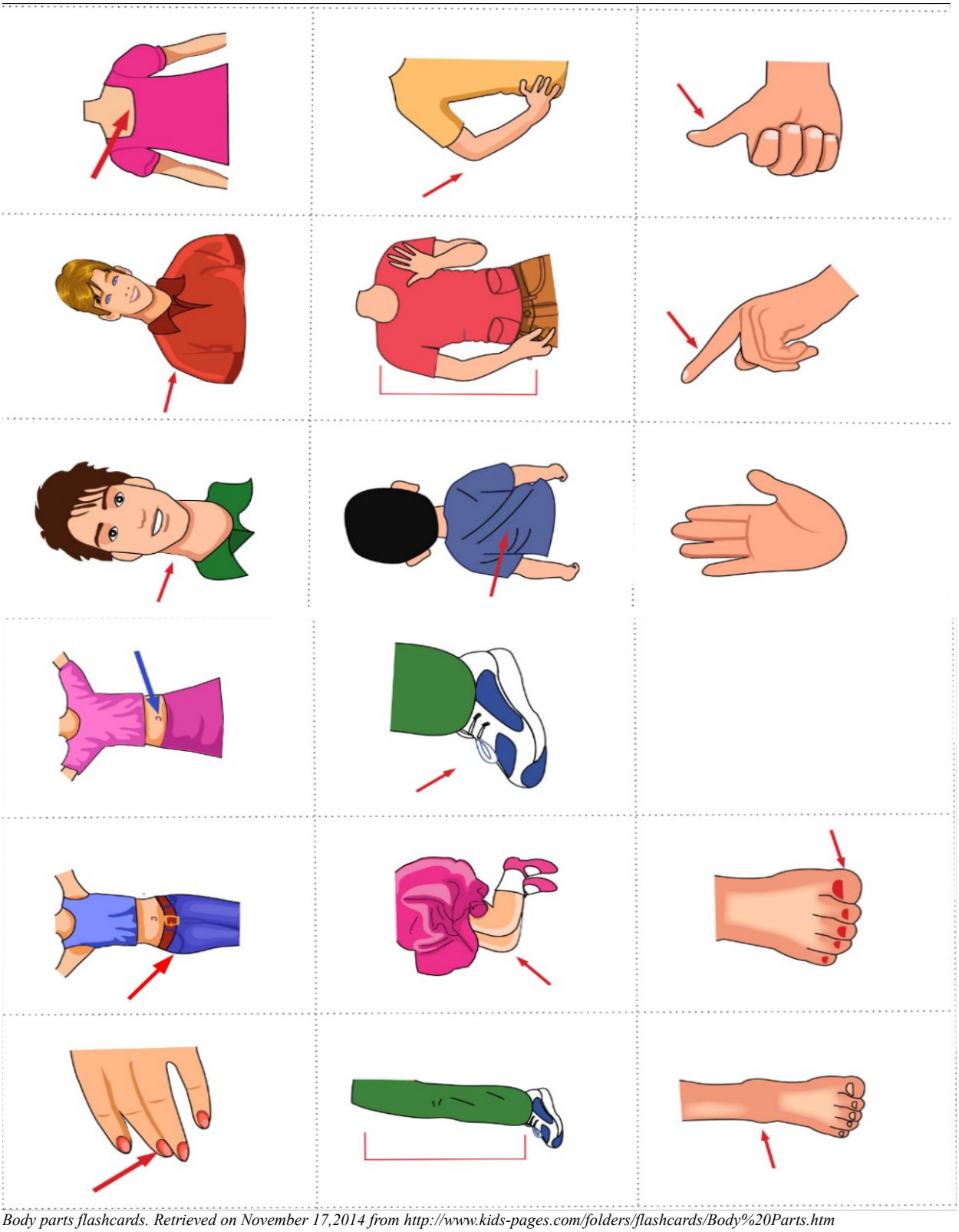
Label the face. Retrieved on November 17, 2014 from http://www.enchantedlearning.com/subjects/anatomy/body/labelface/

Handout 1.1.3



Body parts flashcards. Retrieved on November 17,2014 from http://www.kids-pages.com/folders/flashcards/Body%20Parts.htm

Handout 1.1.4

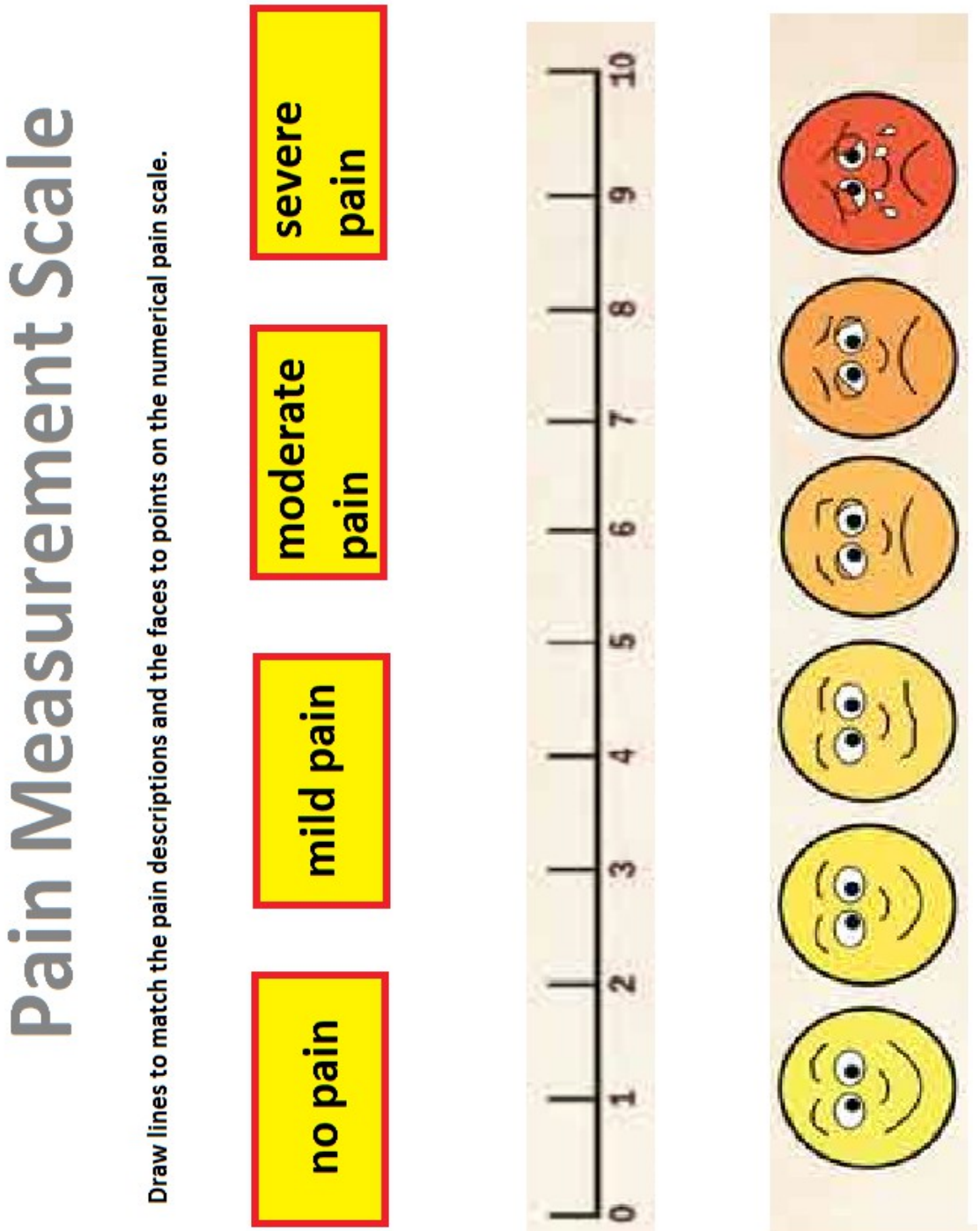


Body parts flashcards. Retrieved on November 17,2014 from http://www.kids-pages.com/folders/flashcards/Body%20Parts.htm

Handout 1.1.5

All images retrieved on November 17,2014 from Google Images
Handout created by Lee, D. (2014).

Handout 1.1.6



Wong, D.L. (Creator). (1999). *Wong-Baker FACES pain rating scale* [Ilustration]. Retrieved on November 17, 2014 from http://www.crdamc.amedd.army.mil/surgery/child6.aspx.
Handout created by Lee, D. (2014).

Handout 1.1.7

Adjectives to Describe Pain

Draw lines to match the words on the left with the correct definitions on the right.

tender	happening all the time
tingling	stopping and starting often and for short periods
crushing	sudden and severe
aching	painful if someone touches it
throbbing	very hot; like it is on fire
intermittent	feels like something pressing very hard; intense pressure
cramping	a slight stinging feeling
dull	pain that regularly starts and stops:
burning	severe pain that you get in part of your body when a muscle becomes too tight, making it difficult for you to move that part of your body (can occur with the stomach)
sharp	continuous but not very severe pain
constant	not severe

All definitions retrieved on November 17, 2014 from http://www.ldoceonline.com/

Handout created by Lee, D. (2014).

Handout 1.1.8

1	2
3	4
5	6
7	8
9	10

Created by Lee, D. (2014).

Handout 1.1.9

tender	cramping
tingling	numbing
crushing	burning
aching	sharp
throbbing	constant
intermittent	

Created by Lee, D. (2014).

Unit 1: Verbal Health Communication

Lesson 2: Describing symptoms – Common Symptoms

Time: 90 minutes
Content Objectives: Describe health symptoms
Language Objectives: Vocabulary of common health symptoms
Expressions of time
Use "have/has" and "feel" describe medical symptoms
Previous Lesson: Describing Symptoms – Body Parts and Pain
Next Lesson: Giving a Medical History

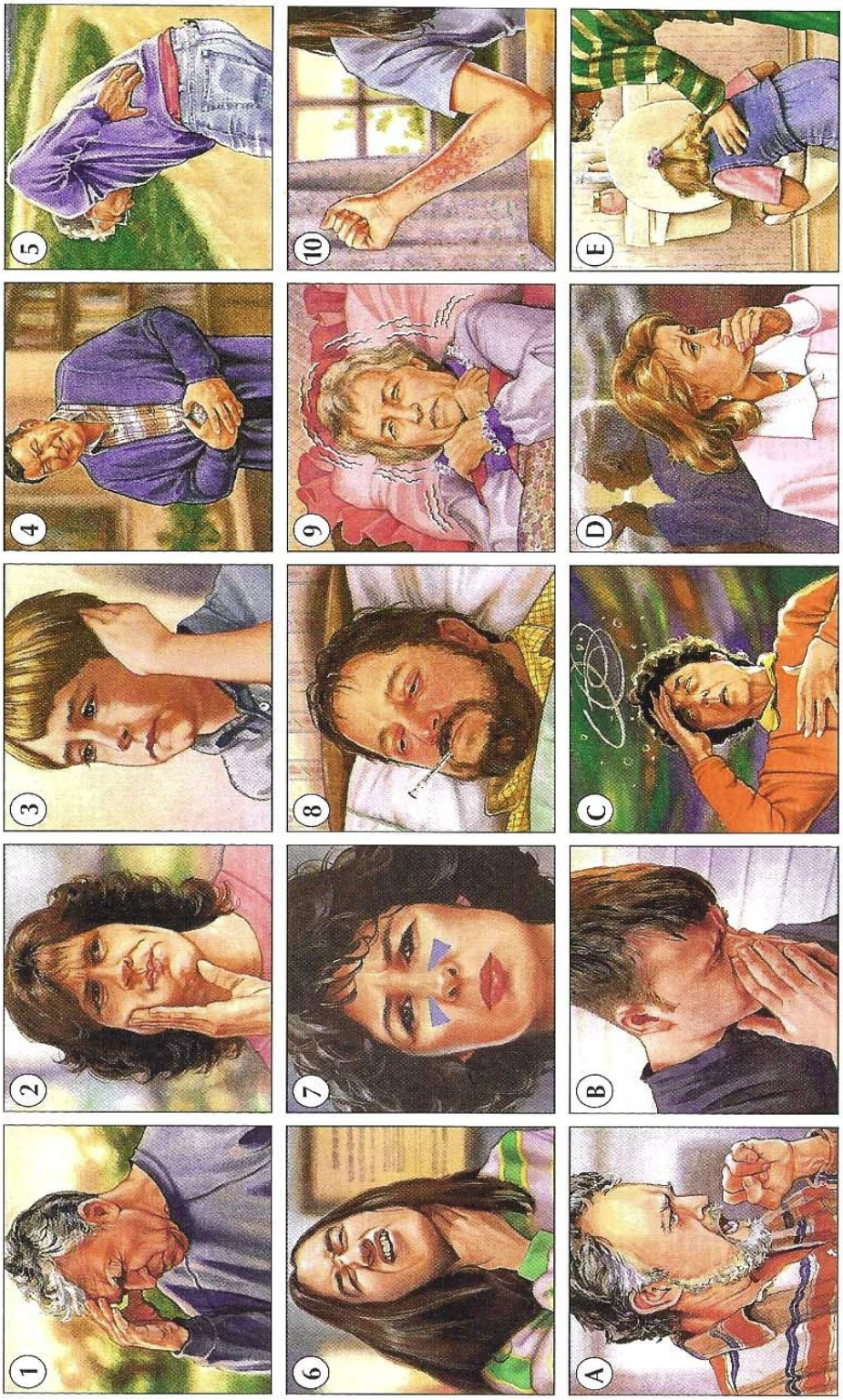
Stage/ Aim	Procedure	Interaction	Materials	Time
Warm-up	In groups, students look at pictures of people experiencing common health symptoms and talk about what is happening in each picture. Teacher should encourage the use of pain and body part vocabulary from the previous lesson where applicable. Students also tell their partners whether they have experienced the symptoms depicted in each picture.	S-S (groups of three)	Handout 1.2.1 with pictures of people experiencing common, non-emergent health symptoms	5 min
Presentation of medical symptoms vocabulary	In groups, student match pictures of common medical symptoms to the name of the symptom. To check answers, teacher display pictures of the symptoms and elicits the symptom from students.	S-S (groups of four) T-Ss (whole class)	Handout 1.2.2 with pictures of medical symptoms and names for these symptoms. Handout 1.2.3 – Handout 1.2.10 with large pictures of people	15 min

	Teacher elicit from students: ____ache = my _____hurts e.g., backache = my back hurts		experiencing the medical symptoms.	
Review of medical symptoms vocabulary	Student mime and guess health symptoms in pairs. 1) Student A flips over a card with the name of a symptom and mimes the symptom. 2) Student B has to guess the symptom. 3) Students switch roles.	S-S (pair-work)	Handout 1.2.11 of cards with names of medical symptoms	10 min
Presentation of "have/has" and "feel" to talk about medical symptoms	Teacher holds up a picture of a person expressing one of the medical symptoms from above and ask students: "What does he/she have?" "How does he/she feel?" Teacher tries to elicit: "He/She has _____." "He/she feels _____." from students Teacher repeats this for several pictures. Teacher gives a picture to one of the students and asks: "What do you have?" "How do you feel?" Teacher tries to elicit: "I have _____." "I feel _____ (dizzy, nauseous) " "I have been _____ (sneezing, vomiting)" Teacher repeats for several pictures Teacher asks students when they use "I have _____.", when they use "I feel _____.", and when they use I have been _____ing." *For nouns like "cold", "fever", and "backache", students should say "I have _____."* *For adjectives like "dizzy", "nauseous",*	T-S (whole class)	Handout 1.2.3 – Handout 1.2.10 with large pictures of people experiencing medical symptoms *(From earlier in the lesson).*	10 min

	"bad", and "terrible", students should say: *"I feel _____."* *For sneeze and vomit, students should say "I have been _____ing."*			
Presentation of time expressions	In groups, students label a calendar with various time expressions (yesterday, yesterday morning, yesterday afternoon, last night, two/three/four days ago, last week, last month) Using the time expressions, students label an image of two calendars at the front of the class.	S-S (groups of three) T-Ss (whole class)	Handout 1.2.12 with time expressions and image of two calendars Handout 1.2.13 printed on a large piece of paper	15 min
Role-play incorporating medical symptoms and time expressions	Students role-play interactions between patients and health providers in the health clinic. 1) Student A plays the health provider and asks three questions: a) What brings you to the office today? b) When did this start? c) Are there any other symptoms? 2) Student B plays the patient and flips over a card with a picture of a medical symptom and a card with a time expression. 3) Student B has to answer student A's first and second question according to the information on his/her cards. Student B makes up associated symptoms for the third question. 4) Repeat for all the cards. 5) Student A and Student B switch roles. Each pair demonstrate one short dialogue to the rest of the class.	S-S (pair-work)	Handout 1.2.14 and Handout 1.2.15: white cards with pictures of people experiencing medical symptoms Handout 1.2.16 and Handout 1.2.17: green cards with pictures of calendars *(Print the symptom picture cards and the calendar picture cards on different-colored*	20 min

			paper)	
Discussion	Students talk in groups about the symptoms that they and their friends or family members have experienced in the past week, the past month, and the past year. (Include instances of pain using language learned in the first lesson). Students volunteer to talk about their experiences with the whole class.	S-S (groups of three)		15 min
Formative Assessment	Teacher observation of student's role-play describing symptoms to a health care provider.			

Handout 1.2.1



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout 1.2.2

Common Medical Symptoms

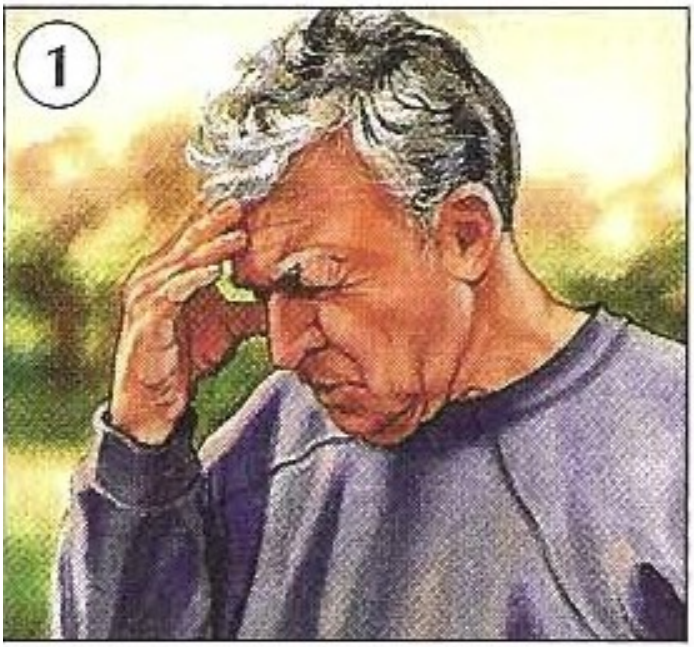
Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Match the pictures to the symptoms below by writing the letters/numbers for the pictures in the blank spaces before the symptoms.

____dizzy	____ nauseous	____toothache
____ chills	____ throw up/vomit	____ sneeze
____rash	____ headache	____ backache
____ stomachache	____earache	____fever
____sore throat	____ cough	____ nasal congestion

Handout created by Lee, D. (2014).

Handout 1.2.3



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

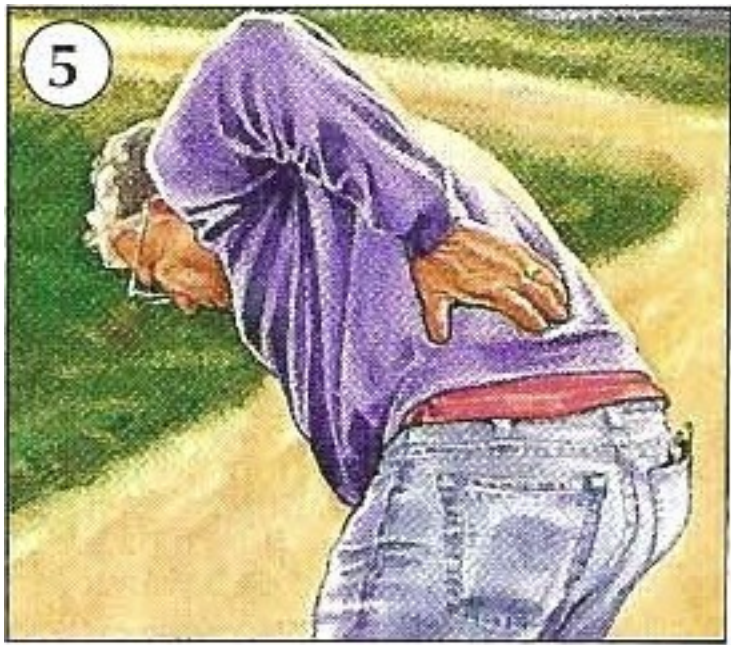
Handout 1.2.4

Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

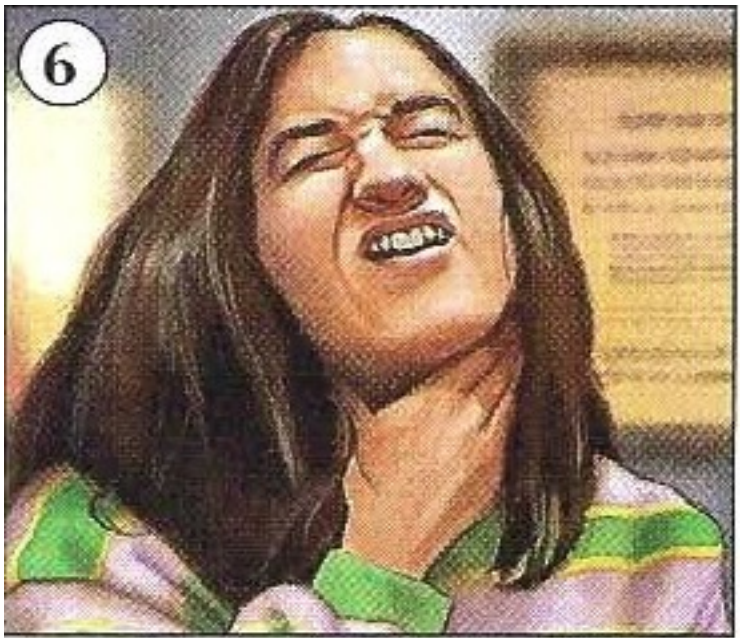
Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

Handout 1.2.5



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

Handout 1.2.6

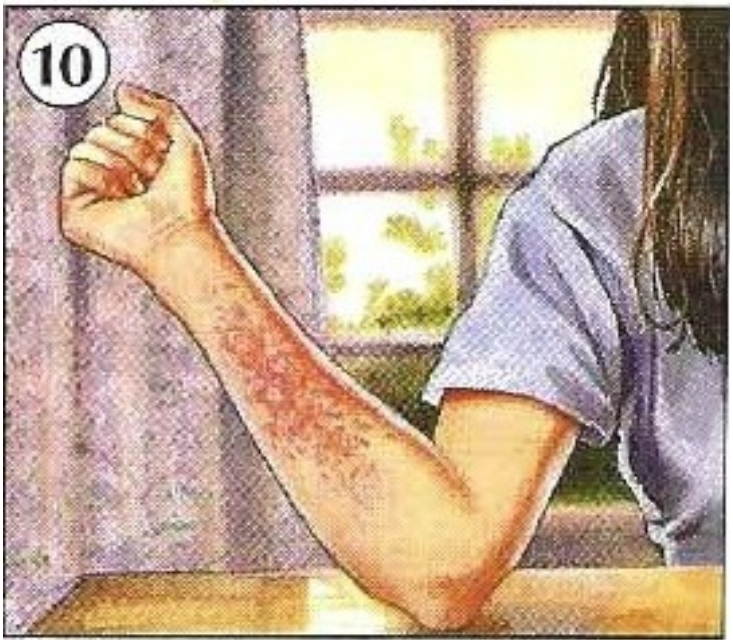
Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

Handout 1.2.7

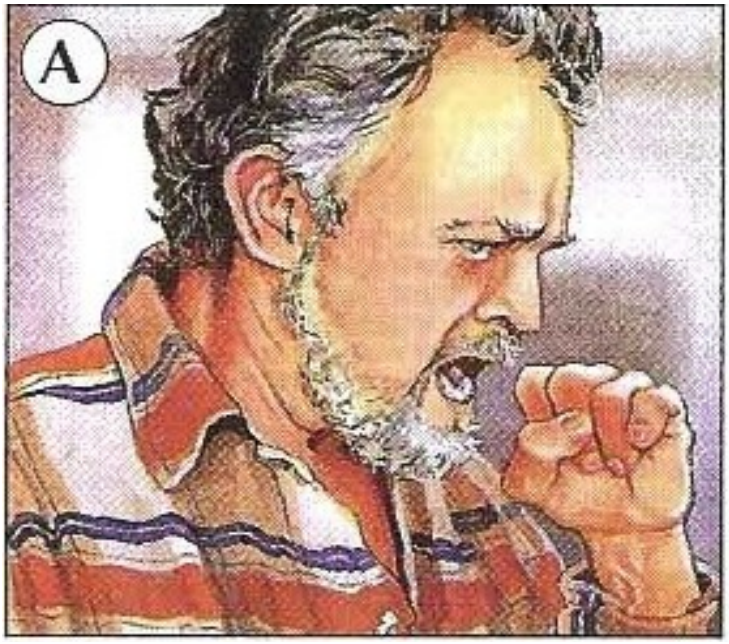
Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.



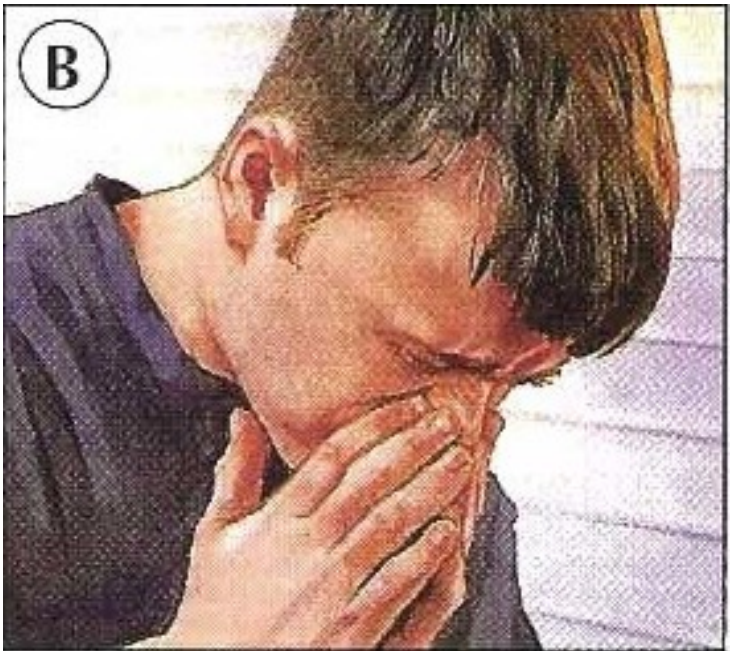
Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

Handout 1.2.8



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.



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Handout created by Lee, D (2014).

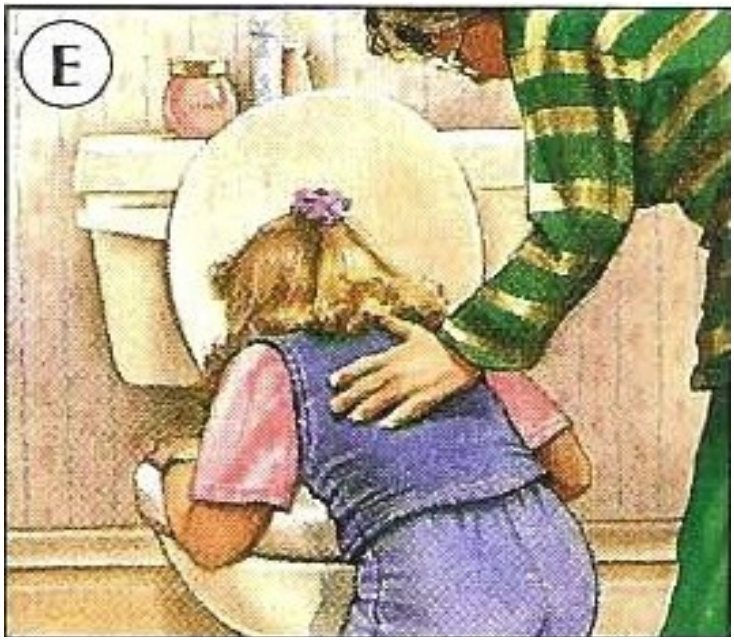
Handout 1.2.9

Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

Handout created by Lee, D (2014).

Handout 1.2.10



Wassink, W. (Illustrator). (2008). *Symptoms and injuries* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .110.

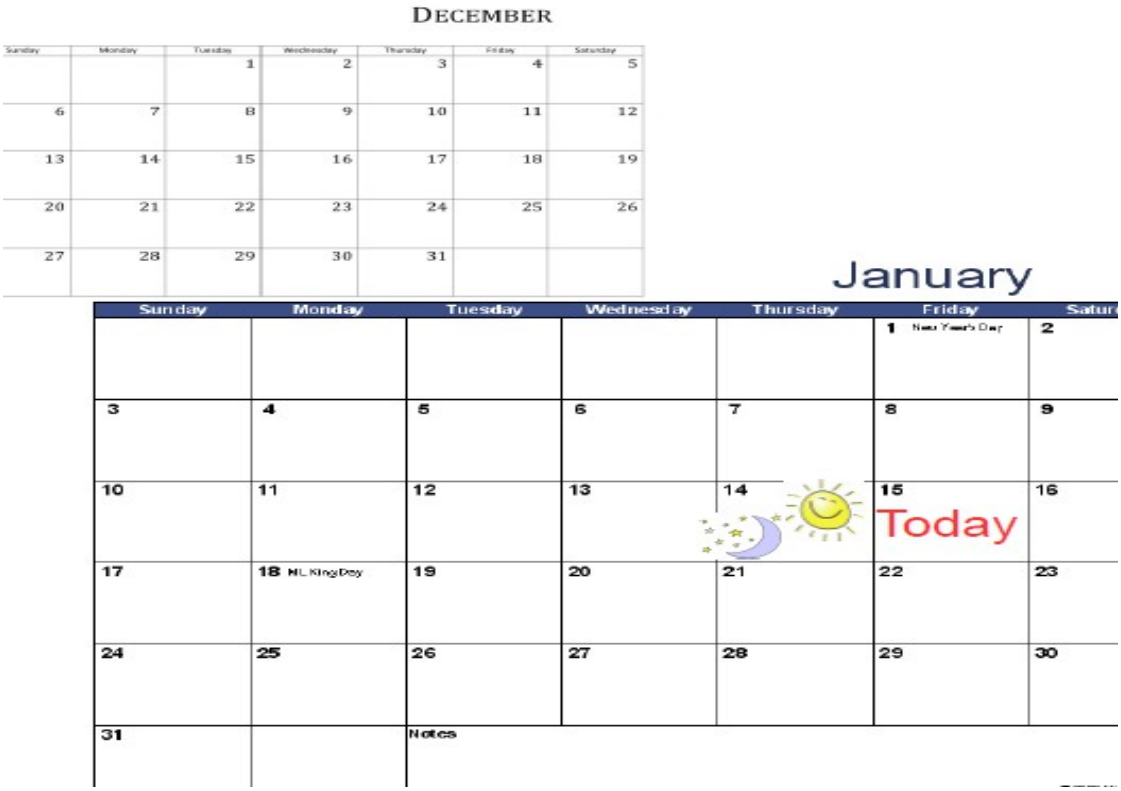
Handout created by Lee, D (2014).

Handout 1.2.11

headache	toothache
earache	stomachache
backache	sore throat
nasal congestion	fever
chills	rash
cough	sneeze
dizzy	nauseous
vomit	

Created by Lee, D. (2014).

Handout 1.2.12

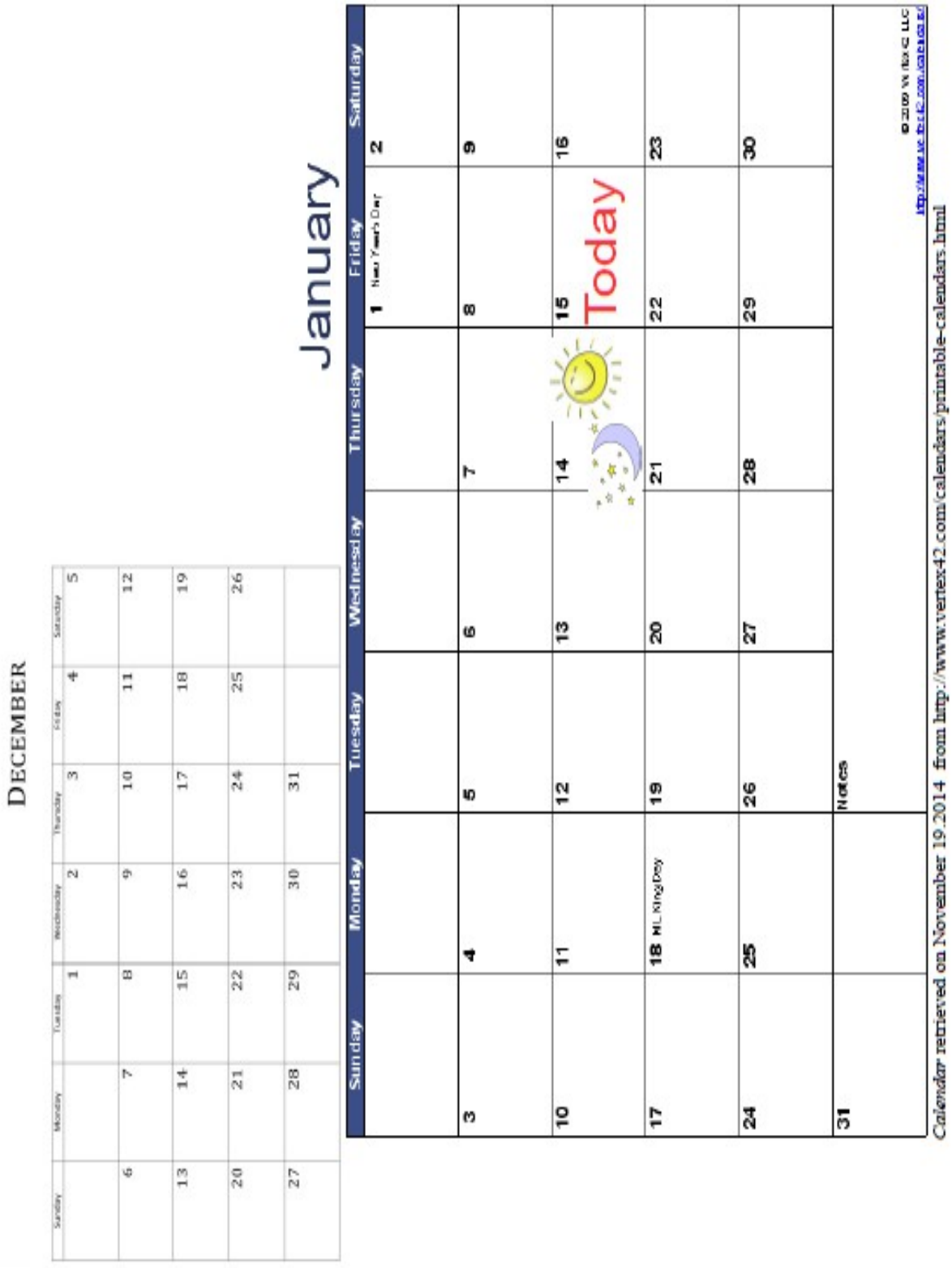


Calendar. Retrieved on November 19.2014 from http://www.vertex42.com/calendars/printable-calendars.html

Label the calendars with the following time expressions:

1. yesterday morning
2. yesterday afternoon
3. last night
4. two days ago
5. three days ago
6. four days ago
7. last week
8. last Thursday
9. last month

Handout 1.2.13



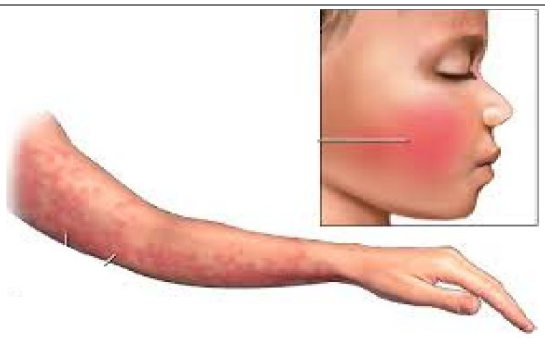
Handout created by Lee, D. (2014).

Handout 1.2.14

Richards, J. (Author). (2000). *What's the matter? vocabulary* [Illustration]. New Interchange: Intro. Cambridge: Cambridge University Press, p. 79

Handout created by Lee, D. (2014).

Handout 1.2.15



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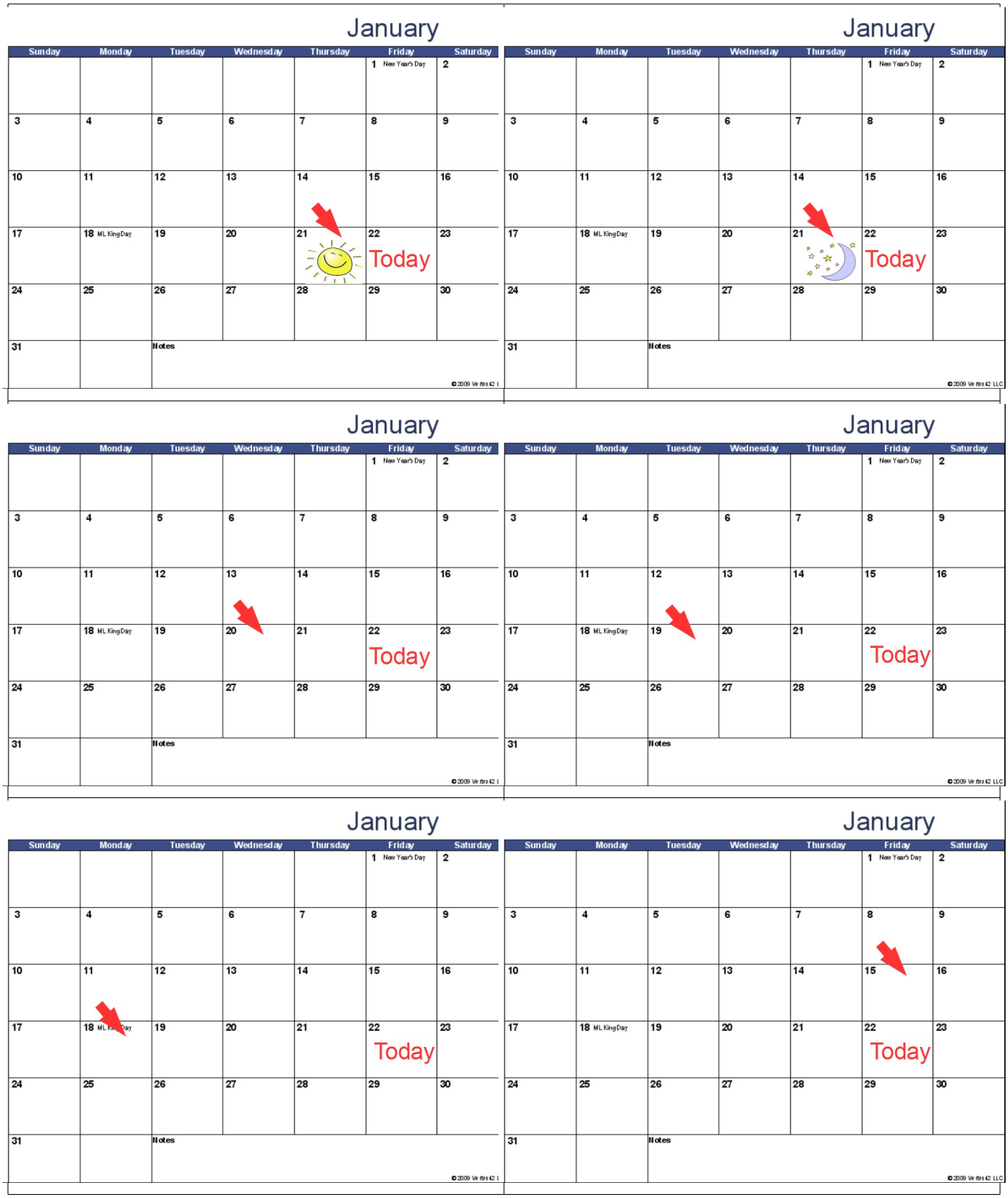
Handout 1.2.16



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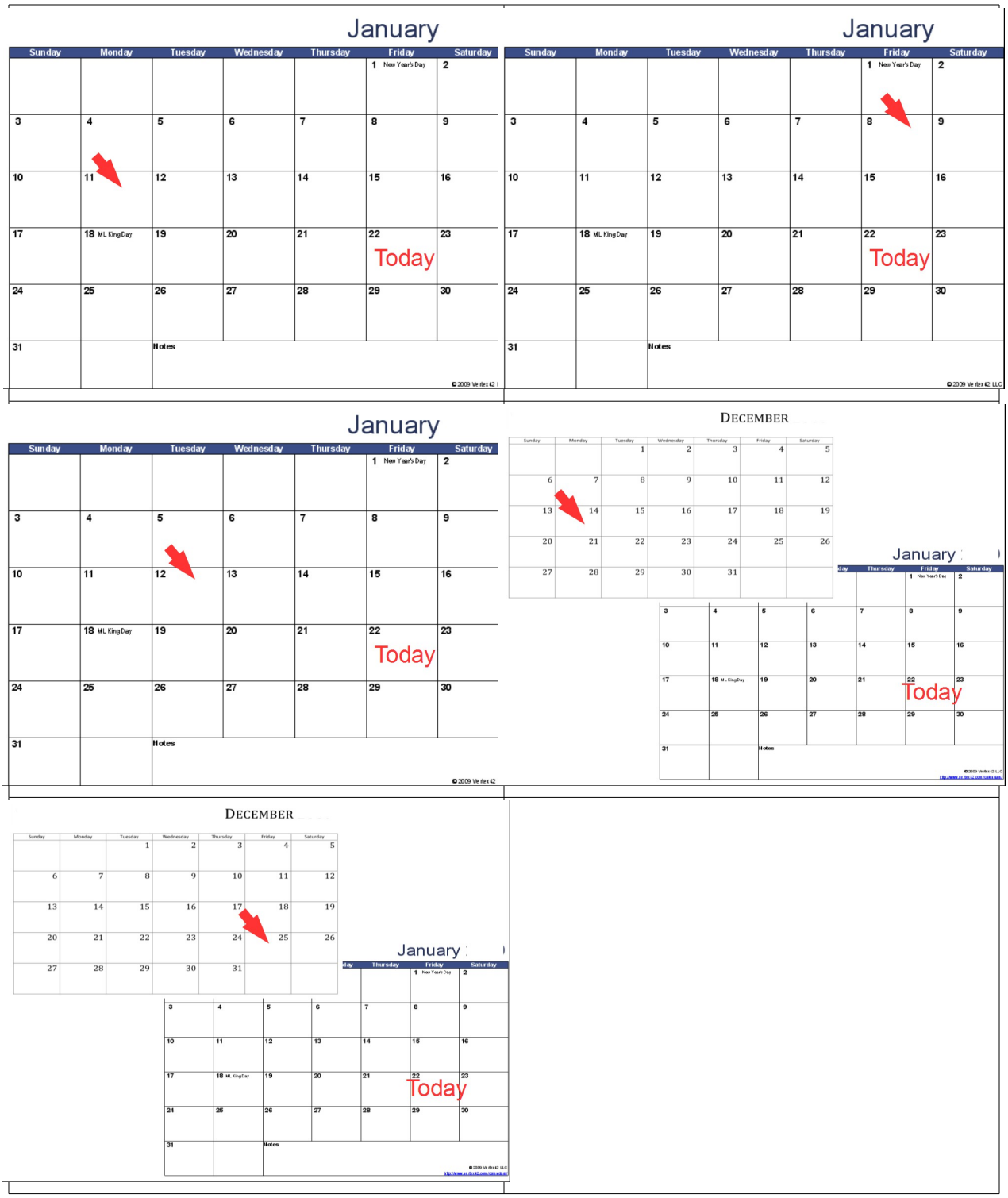
Handout created by Lee, D. (2014).

Handout 1.2.17



All images of calendars retrieved on November 19.2014 from Google Images
Handout created by Lee, D. (2014).

Unit 3: Printed Health Information

Lesson 1: Health Information Handouts and Brochures

Time: 90 minutes
Content Objectives: Health information handouts and brochures
Language Objectives: Read information and facts in the simple present tense
Read health information that uses the modal "can/could" to express possibility
Read health instructions that employ the imperative
Read health recommendations that employ modals of advice
Previous Lesson: Identifying Sources of Health Information
Next Lesson: Creating Health Education Materials for Other ESL speakers

Stage/ Aim	Procedure	Interaction	Materials	Time
Warm-up	Students name the sources of online and print health information that they identified in the previous lesson. Teacher writes these on the board.	T-Ss (whole class)	Whiteboard	1 min
Pre-reading (pre-define vocab)	Teacher elicits the meaning of "high blood pressure" from students. Teacher elicits the meaning of the following words from the students: risk, signs and symptoms, diagnose, treatment, prevent blood, artery, heart disease, stroke, healthy, diet, weight, physically active, regularly, blood pressure cuff, prescribe, lifestyle, alcohol, smoking	T-Ss (whole class)		10 min
Pre-reading (prediction)	In groups, students guess whether the statements about high blood pressure at the top of Handout 3.1.1 are true or false.	S-S (groups of four)	Exercise A of Handout 3.1.1	5 min
Reading for general comprehension	Students read the handouts entitled "Know the Facts on High Blood Pressure" from the CDC and check to see if their predictions regarding the	Individual	Handout 3.1.2 and handout 3.1.3: "Know	5 min

	true/false statements from the pre-reading stage were correct.		the Facts on High Blood Pressure" brochure from the CDC	
Reading for details	Students reread the handouts about high blood pressure and fill in the chart at the bottom of Handout 3.1.1 by listing the ways to recognize, diagnose, treat, and prevent high blood pressure. Students compare their charts in groups. Teacher draws a similar chart on the whiteboard and students fill in a large chart in front of the class with information about high blood pressure.	Individual S-S (groups of four) T-Ss (whole class)	Handout 3.1.2 and handout 3.1.3: "Know the Facts on High Blood Pressure" brochure from the CDC Exercise B of Handout 3.1.1 Whiteboard	15 min
Post-reading discussion	Students talk in groups about their personal experiences or the experiences of someone they know with high blood pressure. In their groups, students identify *concrete* ways that they will prevent and monitor for high blood pressure. For example, if a student says that he/she will exercise to prevent high blood pressure, the student also has to identify an exercise method and routine. Student take turns telling the rest of the class concrete steps that they will take to prevent and monitor for high blood pressure with the class.	S-S (groups of three) T-Ss (whole class)		15 min

Pre-reading (prediction)	Teacher asks students what the kidneys are As a class, students and teacher name and re-define the main categories/sections of the previous reading (risk factors, signs and symptoms, diagnosis, treatment, prevention) In groups, students match a few statements about kidney disease to their appropriate categories in a table.	T-S (whole class) S-S (groups of three)	Exercise A of Handout 3.1.4	5 min
Pre-reading (pre-define vocab)	Teacher elicits the meaning of the following words from the students: chronic, common, waste, urine, permanent, damage, dialysis, transplant, diabetes, cardiovascular(heart) disease, HIV/AIDS, swelling, bloody, foamy, blood glucose, tobacco, control	T-Ss (whole class)		5 min
Reading for general comprehension	Students read the brochure about kidney disease and check to see if their categorization of facts about kidney disease was correct.	Individual	Handout 3.1.5 – Handout 3.1.9: "Facts About Kidney Disease" brochure	5 min
Reading for details	Students reread the handouts about kidney disease and add additional facts about kidney disease in the table on their handouts.	Individual	Handout 3.1.5 – Handout 3.1.9: "Facts About Kidney Disease" brochure Exercise B of Handout 3.1.4	10 min
Post-reading discussion	In pairs, students will use their chart to give advice to a partner about ways to	S-S (pair-work)	Handout 3.1.4	15 min

	prevent and monitor for kidney disease. *(This is review of the language from Unit 1, Lesson 4).* Students will identify concrete steps that they will take to prevent and monitor for kidney disease. Students take telling the rest of the class steps to prevent and monitor for kidney diseases (Each pair talks about one method).	T-Ss (whole class)		
Formative assessment	Students' charts that they filled out based on the information from the readings (Handout 3.1.1. and Handout 3.1.4) Students telling the class the steps for preventing and monitoring for the medical conditions (high blood pressure and kidney disease) that they read about			

Handout 3.1.1

"Know the Facts About High Blood Pressure" Handout

A. Mark whether the following statements are T(true) or F(false).

1. Few Americans have high blood pressure. T/F
2. All the factors that cause high blood pressure are out of our control. T/F
3. High blood pressure has many signs and symptoms. T/F
4. High blood pressure can be treated with lifestyle changes and medications. T/F
5. Normal blood pressure is below 139/89. T/F
6. There are several things that people can do to prevent high blood pressure. T/F

B. Read the handout about high blood pressure and fill in the chart below with the correct information about high blood pressure.

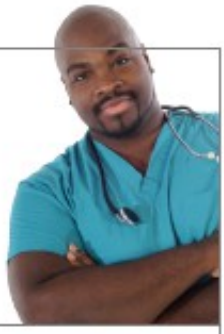
Risk factors	Signs and symptoms	Diagnosis	Treatment	Prevention

Handout created by Lee, D. (2014).

Handout 3.1.2

KNOW THE FACTS ABOUT

High Blood Pressure



What is high blood pressure?

Blood pressure is the force of blood against your artery walls as it circulates through your body. Blood pressure normally rises and falls throughout the day, but it can cause health problems if it stays high for a long time. High blood pressure can lead to heart disease and stroke—leading causes of death in the United States.[1]

Are you at risk?

One in three American adults has high blood pressure—that's an estimated 67 million people.[2] Anyone, including children, can develop it.

Several factors that are beyond your control can increase your risk for high blood pressure. These include your age, sex, and race or ethnicity. But you can work to reduce your risk by eating a healthy diet, maintaining a healthy weight, not smoking, and being physically active.

[1] CDC: Deaths: Final Data for 2009. *www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf*

[2] CDC: Vital signs: awareness and treatment of uncontrolled hypertension among adults—United States, 2003–2010. *www.cdc.gov/mmwr/preview/mmwrhtml/mm6135a3.htm*

What are the signs and symptoms?

High blood pressure usually has no warning signs or symptoms, so many people don't realize they have it. That's why it's important to visit your doctor regularly. Be sure to talk with your doctor about having your blood pressure checked.

How is high blood pressure diagnosed?

Your doctor measures your blood pressure by wrapping an inflatable cuff with a pressure gauge around your arm to squeeze the blood vessels. Then he or she listens to your pulse with a stethoscope while releasing air from the cuff. The gauge measures the pressure in the blood vessels when the heart beats (systolic) and when it rests (diastolic).

How is it treated?

If you have high blood pressure, your doctor may prescribe medication to treat it. Lifestyle changes, such as the ones listed above, can be just as important as taking medicines. Talk with your doctor about the best ways to reduce your risk for high blood pressure.

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention

Centers for Disease Control and Prevention. (2013). *Know the facts about high blood pressure.* Retrieved on November 19, 2014 from http://www.cdc.gov/bloodpressure/docs/consumered_hbp.pdf

Handout 3.1.3

KNOW THE FACTS ABOUT

High Blood Pressure

What blood pressure levels are healthy?

To determine whether your blood pressure is normal, your doctor examines your systolic and diastolic pressures, which the gauge measures in millimeters of mercury (abbreviated as mmHg).

	Blood Pressure Levels
Normal	systolic: less than 120 mmHg diastolic: less than 80 mmHg
At risk (prehypertension)	systolic: 120–139 mmHg diastolic: 80–89 mmHg
High	systolic: 140 mmHg or higher diastolic: 90 mmHg or higher

Can high blood pressure be prevented?

You can take several steps to maintain normal blood pressure levels:

- Get your blood pressure checked regularly.
- Eat a healthy diet. Tips on reducing saturated fat in your diet are available on the Web site for CDC's Division of Nutrition, Physical Activity, and Obesity. *http://www.cdc.gov/nutrition/everyone/basics/fat/saturatedfat.html*
- Maintain a healthy weight. CDC's Healthy Weight Web site includes information and tools to help you lose weight. *http://www.cdc.gov/healthyweight/index.html*
- Be physically active. Visit CDC's Physical Activity Web site for more information on being active. *http://www.cdc.gov/physicalactivity/index.html*
- Limit alcohol use. See CDC's Alcohol and Public Health Web site for more information. *http://www.cdc.gov/alcohol*
- Don't smoke. CDC's Office on Smoking and Health Web site has information on quitting smoking. *http://www.cdc.gov/tobacco*
- Prevent or manage diabetes. Visit CDC's Diabetes Public Health Resource for more information. *http://www.cdc.gov/diabetes*

For More Information

Learn more about high blood pressure at the following Web sites:

- Centers for Disease Control and Prevention's Division for Heart Disease and Stroke Prevention: *http://www.cdc.gov/dhdsp/index.htm*
- American Heart Association: *http://www.americanheart.org*
- National Heart, Lung, and Blood Institute: *http://www.nhlbi.nih.gov*

Centers for Disease Control and Prevention. (2013). *Know the facts about high blood pressure.* Retrieved on November 19, 2014 from http://www.cdc.gov/bloodpressure/docs/consumered_hbp.pdf

Handout 3.1.4

"Facts About Kidney Disease" Handout

A. Write the following five statements about kidney disease into the appropriate places on the chart below.

1. The doctor may test your urine in the office.
2. Bloody, foamy, or dark-colored urine.
3. Exercise regularly.
4. If the damage to your kidney is very bad, you may need dialysis or a kidney transplant to live.
5. The most common causes of kidney disease are diabetes and high blood pressure.

Risk factors	Signs and symptoms	Diagnosis	Treatment	Prevention

B. Read the brochure on kidney disease and add more information to each of the categories in the chart.

Handout created by Lee, D. (2014).

Handout 3.1.5

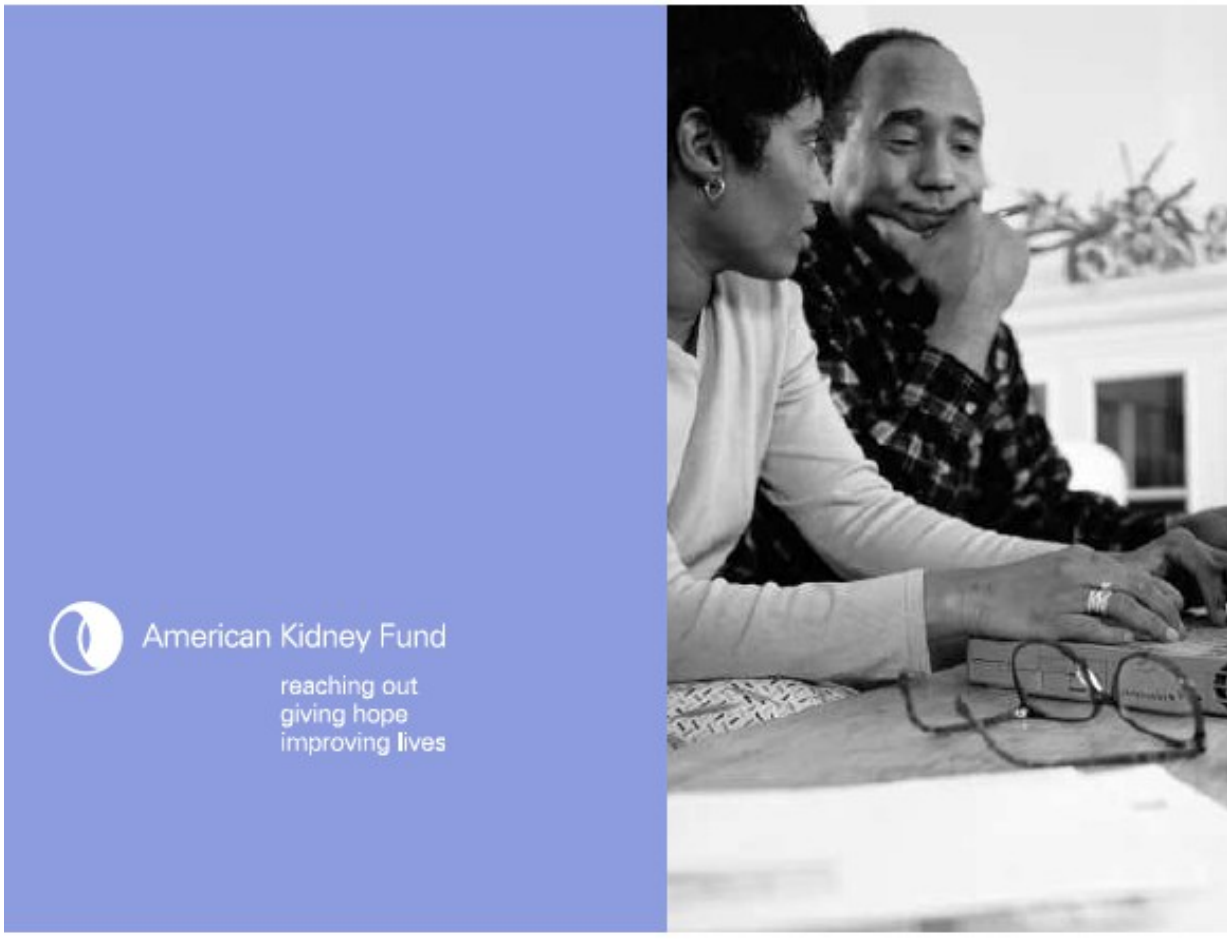
American Kidney Fund
6110 Executive Blvd., Suite 1010
Rockville, MD 20852
Toll-Free: 800.638.8299
HelpLine: 866.300.2900
helpline@kidneyfund.org
http://www.kidneyfund.org
Se habla español.

Combined Federal Campaign #11404

American Kidney Fund

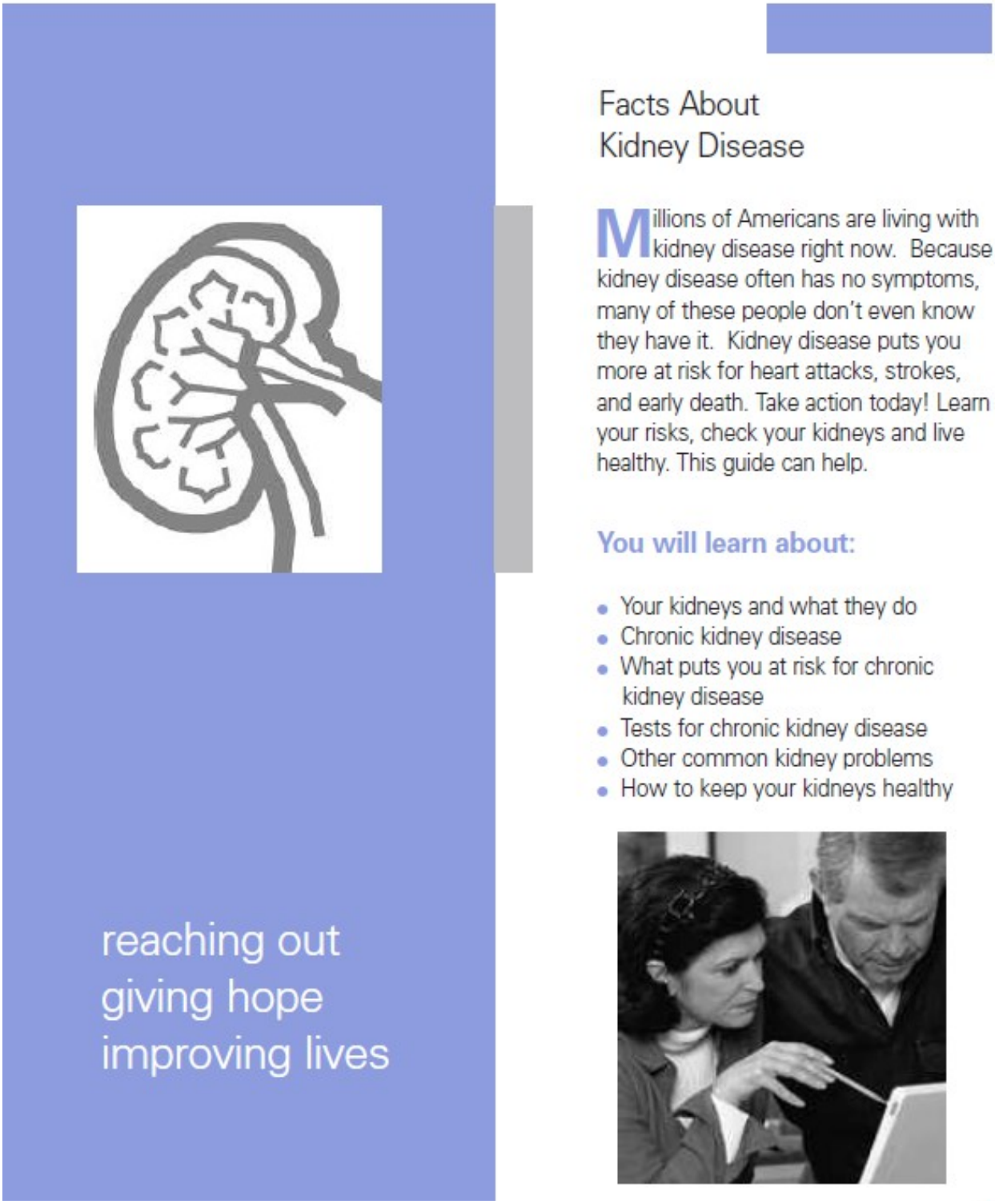
reaching out
giving hope
improving lives

Facts About Kidney Disease



American Kidney Fund. (2010). *Facts about kidney disease.* Retrieved on November 19, 2014 from *http://www.kidneyfund.org/kidney-health/brochures/brochure-pdf/facts_about_kidney_disease.pdf*

Handout 3.1.6



American Kidney Fund. (2010). *Facts about kidney disease.* Retrieved on November 19, 2014 from *http://www.kidneyfund.org/kidney-health/brochures/brochure-pdf/facts_about_kidney_disease.pdf*

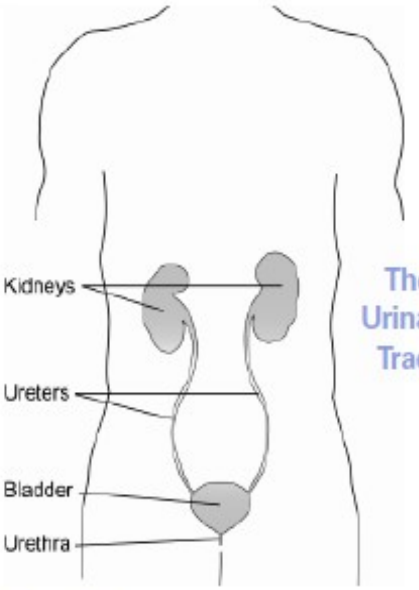
Handout 3.1.7

What Your Kidneys Do

Your kidneys clean waste and extra fluid from your blood. This makes up your urine (pee). Your kidneys also do many other jobs that you need in order to live.

Your Kidneys:

- Balance chemicals in your body
- Help control your blood pressure
- Help keep your bones healthy
- Help make red blood cells



The Urinary Tract

The Basics:

- Most people have two kidneys.
- Your kidneys are located on either side of your spine, just below your rib cage.
- Each kidney is about the size of your fist.
- Your kidneys are connected to your bladder by thin tubes called ureters.

Chronic Kidney Disease

The term "chronic kidney disease" (CKD) refers to permanent damage to your kidneys that can get worse over time. If the damage is very bad, your kidneys may stop working. If this happens, you will need dialysis or a transplant in order to live.

CKD can be caused by many different diseases. The most common causes of CKD are diabetes and high blood pressure. Some infections, inherited diseases, and injuries can also cause CKD.

Risks for Chronic Kidney Disease

Anyone can develop CKD, but you are at more risk if you:

- Have diabetes
- Have high blood pressure
- Have cardiovascular (heart) disease
- Are African American, Hispanic, Native American or Asian American
- Are over 60 years old
- Have HIV/AIDS

American Kidney Fund. (2010). *Facts about kidney disease.* Retrieved on November 19, 2014 from *http://www.kidneyfund.org/kidney-health/brochures/brochure-pdf/facts_about_kidney_disease.pdf*

Handout 3.1.8

Symptoms of Kidney Disease

CKD often has no symptoms until it is very far along! The only way to be sure how well your kidneys are working is to get tested.

If you do have symptoms, they might include:

- Feeling sick in your stomach often
- Feeling tired or dizzy often
- Swelling in your feet, hands or face
- Back pain
- Bloody, foamy or dark-colored urine
- High blood pressure
- A change in how often you go to the bathroom (pee more or less often)

Tests for Kidney Disease

Being tested for kidney disease and its risk factors is simple. Ask your doctor about these tests:

eGFR (estimated Glomerular Filtration Rate)

- This test tells your doctor how well your kidneys clean your blood.
- Your doctor tests your blood for a kind of waste called creatinine. Healthy kidneys filter extra creatinine out of your blood. Your doctor will use the result from the test to calculate your eGFR.
- An eGFR of less than 60 for three months or more may be a sign of kidney disease.

Urine Test

- This test tells your doctor if there is blood or protein in your urine.
- Your doctor may test your urine in the office or ask you to collect your urine at home.
- Protein or blood in your urine may be a sign of kidney disease.

Blood Pressure

- This test tells your doctor how hard your heart is working to pump your blood.
- For most people, normal blood pressure is *less* than 120/80 (120 over 80). Ask your doctor what your blood pressure should be.
- High blood pressure is the second leading cause of kidney failure, but kidney disease can also cause you to have high blood pressure.

Blood Glucose (Sugar) Test

- This test tells your doctor how much glucose (sugar) is in your blood.
- Your doctor will test your blood, usually after you have fasted (not had anything to eat or drink) for eight hours. For most people, normal fasting blood glucose is less than 100. Ask your doctor what your fasting blood glucose should be.
- Diabetes is the leading cause of kidney failure, but many people have diabetes and don't know it.

American Kidney Fund. (2010). *Facts about kidney disease.* Retrieved on November 19, 2014 from *http://www.kidneyfund.org/kidney-health/brochures/brochure-pdf/facts_about_kidney_disease.pdf*

Handout 3.1.9

Preventing Kidney Disease

Diabetes and high blood pressure are the two leading causes of kidney failure. Live a healthy lifestyle to prevent diabetes and high blood pressure. If you already have diabetes or high blood pressure, control them to prevent chronic kidney disease!

Simple Steps for Living Healthy:

- **See your doctor for regular checkups.** Ask what you can do to help keep your kidneys healthy.
- **If your doctor prescribes you medicines, take them as directed.** To work right, many medicines need to be taken even when you feel fine.
- **Exercise regularly.** Try to be active for 30 minutes a day, at least 5 days of the week. Start small and work your way up to this goal.
- **Eat a low-fat and low-salt diet.** A healthy diet can help prevent diabetes, high blood pressure and kidney disease.
- **Avoid tabacco.** Tobacco raises your risk for kidney diesase and other health problems.
- **Limit how much alcohol you drink.** Have no more than two drinks per day if you're a man and no more than one drink per day if you're a woman.
- **Get tested.** Kidney disease cannot always be prevented. Get your kidneys tested, and treat kidney disease early if you have it!

Where to Find More Help

To learn more, visit our website at **www.kidneyfund.org**. If you still have questions, call the American Kidney Fund's toll-free HelpLine at **1.866.300.2900** or e-mail us at **helpline@kidneyfund.org**.

American Kidney Fund. (2010). *Facts about kidney disease.* Retrieved on November 19, 2014 from *http://www.kidneyfund.org/kidney-health/brochures/brochure-pdf/facts_about_kidney_disease.pdf*

Unit 4: Medication and Nutrition Information

Lesson 1: Medication Labels

Time: 90 minutes
Content Objectives: Read, analyze, and interpret medication labels
Language Objectives: Vocabulary related to numbers and time
Time expressions of frequency
Vocabulary related to medications.
Follow directions that are given using the imperative form
Previous Lesson: Patient's Bill of Rights
Next Lesson: Medication Information Handouts

Stage/ Aim	Procedure	Interaction	Materials	Time
Warm-up	In groups, students talk to their partners about any medications they currently take or any medications that they have taken in the past. In groups, students talk to their partners about any problems with medications that they are currently encountering or they have encountered in the past. They can also talk about the experiences of their family members or friends. Students volunteer to share their experiences with class.	S-S (groups of four) T-Ss (whole class)		5 min
Presentation of vocabulary related to medications Presentation of expressions of frequency	Teacher elicit definitions for the following words from students: pill, tablet, capsule, refills, pharmacy, drug, expiration date, as needed Students fill in two charts regarding when to take a medication according to the medication dosing frequency instructions on the chart. The first chart is based on a hypothetical daily schedule. The second chart is based on their own schedule.	T-Ss (whole class) Individual	Handout 4.1.1 and Handout 4.1.2 with two charts	25 min

	Students compare their charts in groups. Students come up to the whiteboard to fill out a replica of the first chart.	S-S (groups of three) T-Ss (whole class)		
Presentation of measurements	In groups, students measure out the volumes on Handout 4.1.2 using water, a medication cup, a teaspoon, and a tablespoon. (*optional: dosing syringe and dosing spoon*) To check answers, teacher calls out a volume and students have to measure out the volume using water, medication cups, teaspoons, and tablespoons.	S-S (groups of three)	Handout 4.1.3 with a list of measurements Water Medication cups, teaspoons, tablespoons, dosing spoons, and dosing syringes. (*The medication cups, teaspoons, and tablespoons are necessary. The dosing spoon and dosing syringe are optional, but will be helpful for more precise ways to measure medication volume*.)	
Presentation of a sample prescription	In groups, students look at a sample prescription medication label and match parts of the medication label to their	S-S (groups of four)	Handout 4.1.4 in which students have	10 min

medication label	descriptions. As a class, students label a large image of a prescription medication label. *(Teacher can draw the prescription label from Handout 4.1.4 on the board. Otherwise, the teacher can print Handout 4.1.4 on a large piece of paper.)*	 T-Ss (whole class)	to identify the parts of a prescription medication label	
Interpretation of prescription medication labels	In groups of four, students look at various prescription medication labels and fill in a chart with answers to questions about the labels. To check answers, students read out-loud their answers to the questions (Each group reads out-loud the answers to the questions for one prescription label).	S-S (groups of four) T-Ss (whole class)	Handout 4.1.5: Chart with questions about the prescription medication labels Handout 4.1.6 – Handout 4.1.11 with prescription medication labels	15 min
Presentation of a sample over-the-counter medication package	In groups, students look at the packaging of a sample over-the-counter medication and match parts of the package to their descriptions. As a class, students label a large image of an over-the-counter medication label. *(Teacher can draw the over-the-counter medication label from Handout 4.1.12 on the board. Otherwise, the teacher can print Handout 4.1.12 on a large piece of paper.)*	S-S (groups of four) T-Ss (whole class)	Handout 4.1.12 in which students have to identify the parts of an over-the-counter medication label	15 min
Interpretation of over-the-counter medication	In groups, students look at various over-the-counter medication packages and fill in a chart with information about the labels.	S-S (groups of four)	Handout 4.1.13: Chart with questions about the	20 min

packages	To check answers, students read out-loud their answers to the questions. (Each group reads out-loud the answers to the questions for one over-the-counter medication label).	T-Ss (whole class)	over-the-counter medication labels Handout 4.1.14 – Handout 4.1.23 with over-the-counter medication labels	
Formative Assessment	Charts that students filled out with information about the prescription and over-the-counter medication labels (Handout 4.1.5 and Handout 4.1.13)			

Handout 4.1.1

Medication Dosing Frequency

Pretend that you wake up at 7 a.m. and go to sleep at 11 p.m. How would you take a medication that you have to take ...

1. ...once a day?
2. ...twice a day?
3. ...three times a day?
4. ...every two hours?
5. ...every four hours?
6. ...every six hours?
7. ...every eight hours?
8. …before bedtime?
9. …in the morning?
10. ...before meals?
11. …after meals?

Indicate the time that you would take the medication by putting an "x" in the correct box according to the dosage frequency instructions at the top of the chart.

Time	Once a day	Twice a day	Three times a day	Every two hours	Every four hours	Every six hours	Every eight hours	Before bedtime	In the morning	Before meals	After meals
7 a.m. (wake up)											
8 a.m. (breakfast)											
9 a.m.											
10 a.m.											
11 a.m.											
12 p.m. (lunch)											
1 p.m.											
2 p.m.											
3 p.m.											
4 p.m.											
5 p.m.											
6 p.m.											
7 p.m. (dinner)											
8 p.m.											
9 p.m.											
10 p.m.											
11 p.m. (sleep)											

Handout 4.1.2

1. Fill in the chart below with your own schedule on the left hand column.
2. Write “breakfast”, “lunch”, and “dinner” next to the times when you eat each of these meals.
3. Then indicate how you would take the medication according to the instructions by putting an “x” in the appropriate boxes.

Time	Once a day	Twice a day	Three times a day	Every two hours	Every four hours	Every six hours	Every eight hours	Before bedtime	In the morning	Before meals	After meals

Handout 4.1.3

Measurements of Volume for Medications

Using the measuring instruments, work with your partners to measure out the following amounts of water:

- 1 teaspoon (tsp)
- 1 ½ teaspoon
- 2 teaspoons
- 2 ½ teaspoons
- 3 teaspoons
- 1 tablespoon (tbsp)
- 5 ml
- 7.5 ml
- 10 ml
- 12.5 ml
- 15 ml
- 20 ml
- 30 ml

Handout 4.1.4

Parts of a Prescription Drug Label

Image of prescription drug label retrieved on November 20, 2014 from Google Images

Label the prescription drug label above with the appropriate descriptions below.

a) Person who gets this drug
b) Name of drug and strength of drug
c) Doctor's name
d) Prescription fill date
e) Pharmacy name and address
f) Number used by the drugstore to identify this drug for your refills
g) Instructions about how often and when to take this drug
h) Number of refills before certain date
i) Drugstore phone number
j) Expiration date

Handout created by Lee, D. (2014).

Handout 4.1.5

Questions for Prescription Drug Labels

Look at the prescription drug labels with your partners and fill in the chart below with the information from the labels.

Drug name	Who is the doctor that prescribed the drug?	What pharmacy is the drug from?	How much of the drug should you take with each dose?	How often do you take the drug?	What is the expiration date of the drug?	How many refills are there?
Lisinopril/ Hydroclorothiazide (Lisinop/Hctz)	*Dr. Terry Brown*	*Smith Family Drugs*	*One tablet*	*Two times a day*	*06/14/13*	*Three refills (until 5/11/2013)*
Lipitor						
Clindamycin						
Flonase AQ Nasal						

Amoxicillin						
Hydrocodone 5mg /APAP 325mg						
Darvocet-N (Propoxyphene Napsy APAP)						
Prozac (fluoxetine)						

Simvastatin						
Carafate						
Albuterol						
Diclofenac						

Created by Lee, D. (2014).

Handout 4.1.6

Prescription Drug Labels

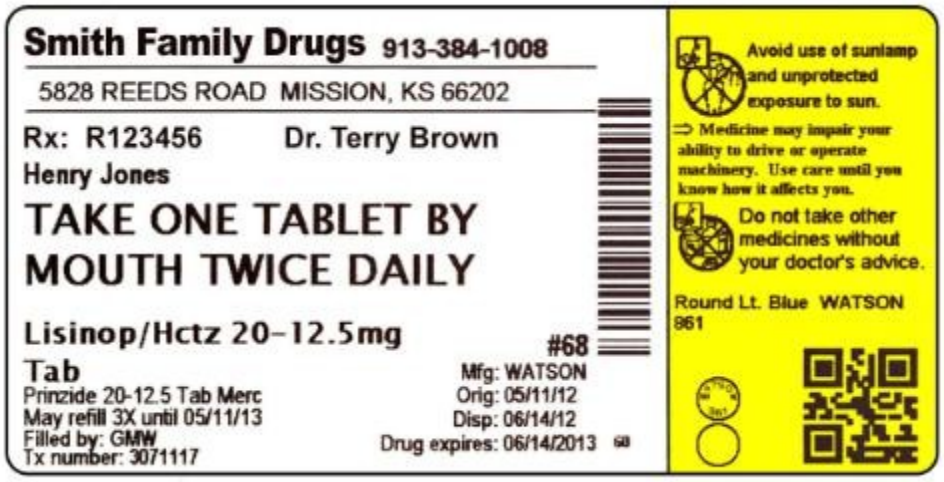


Image of prescription drug label retrieved on November 20, 2014 from Google Images

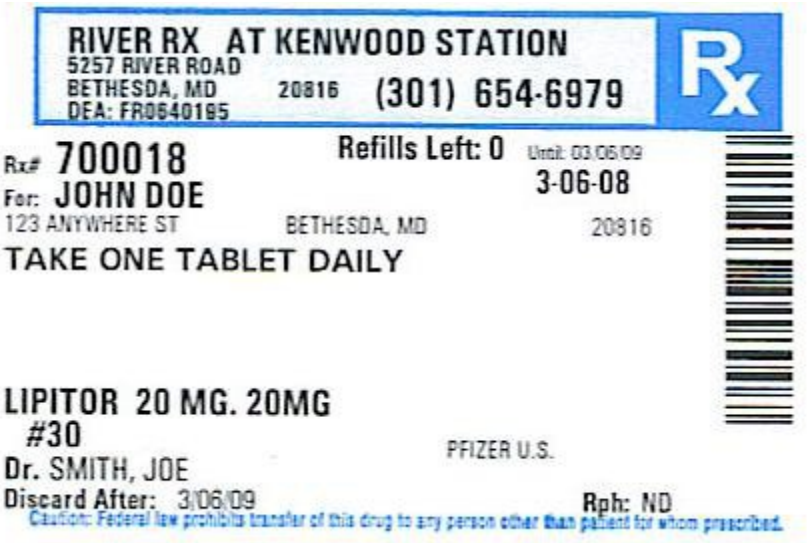


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.7

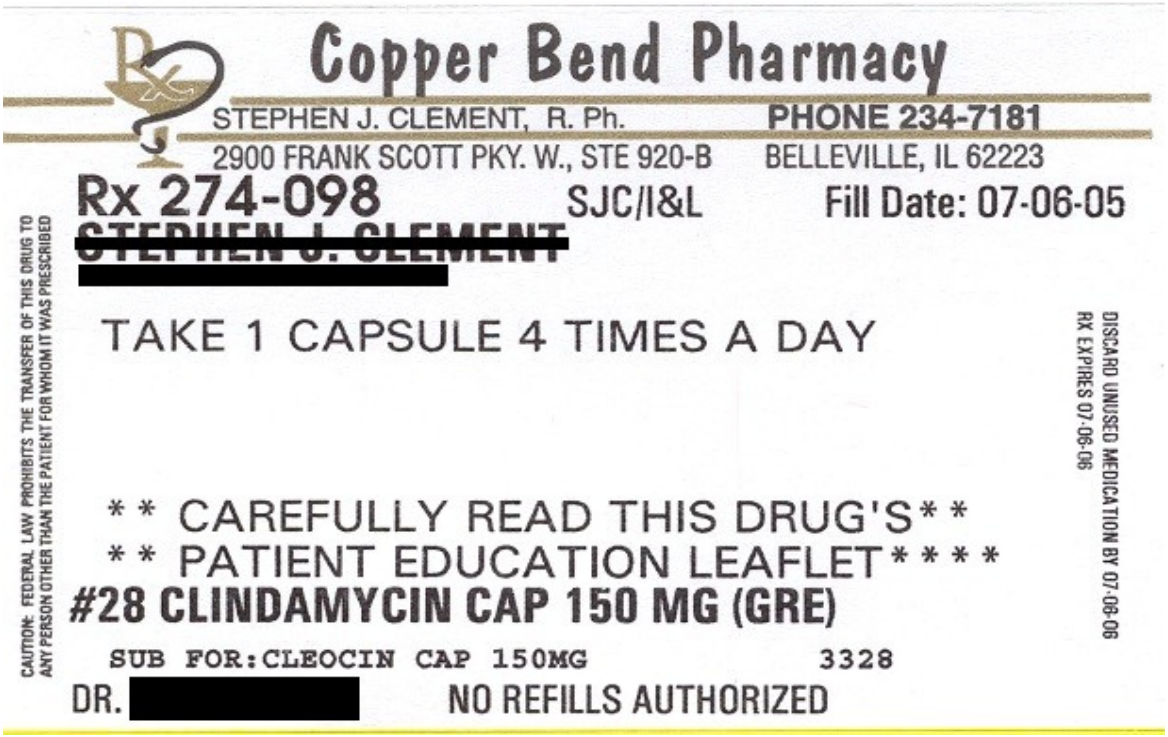


Image of prescription drug label retrieved on November 20, 2014 from Google Images

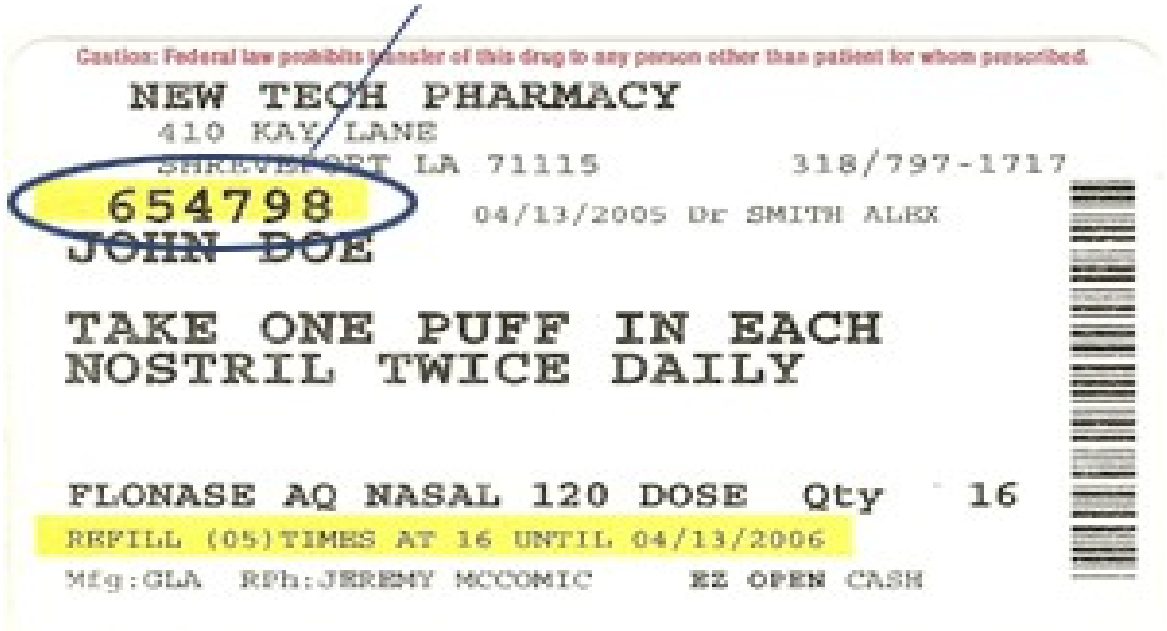


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.8

Image of prescription drug label retrieved on November 20, 2014 from Google Images

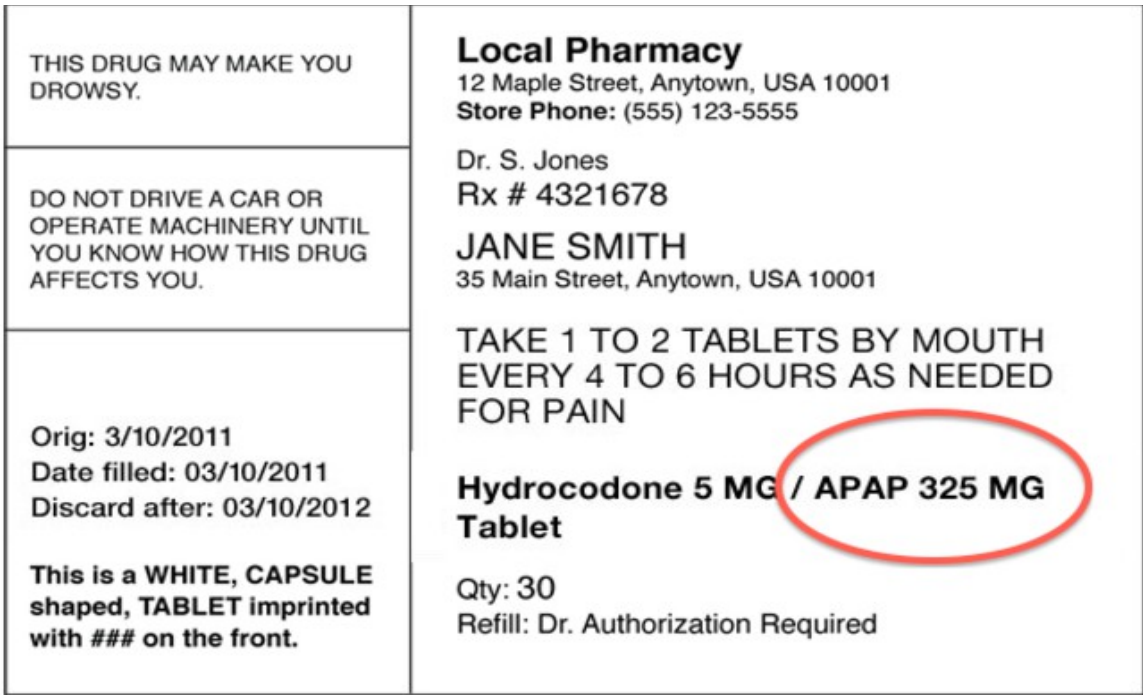


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.9

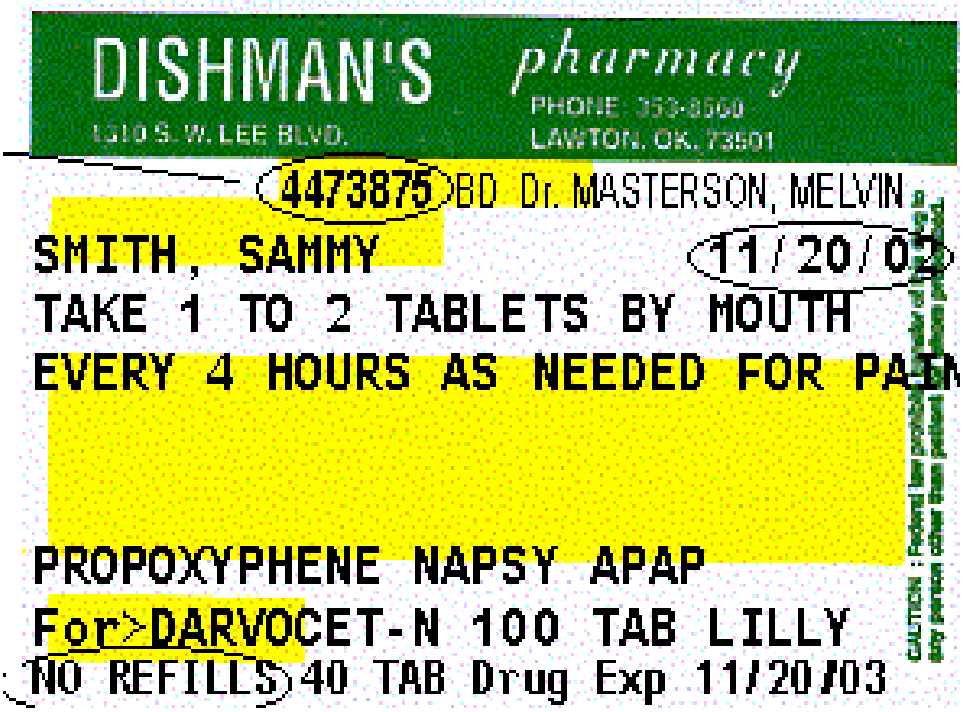


Image of prescription drug label retrieved on November 20, 2014 from Google Images

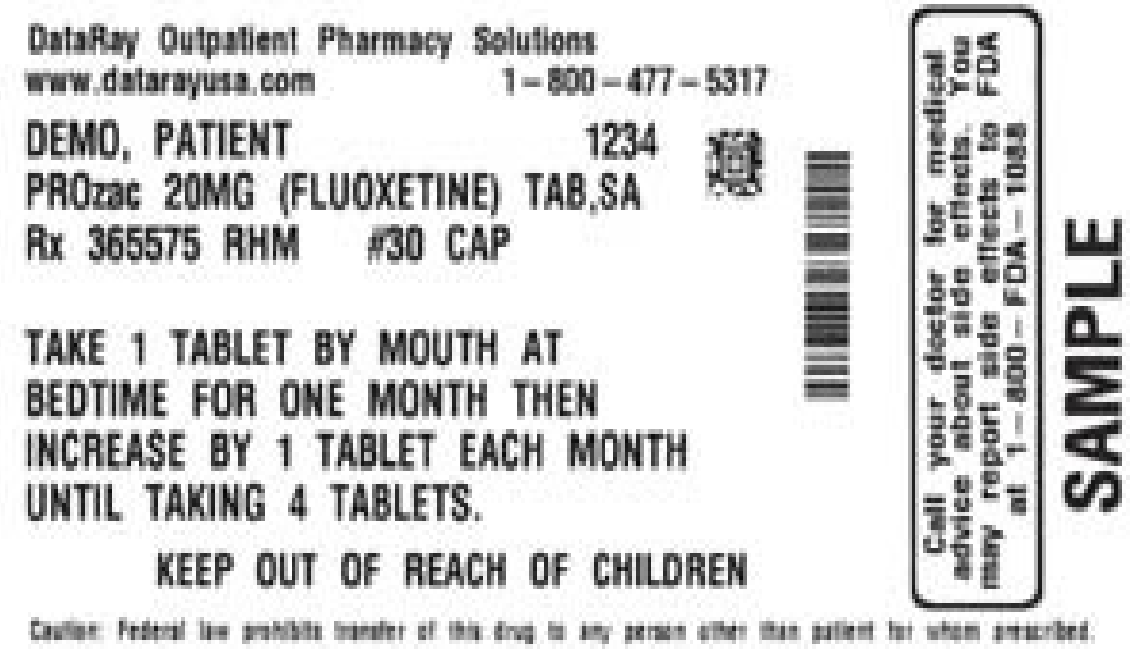


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.10

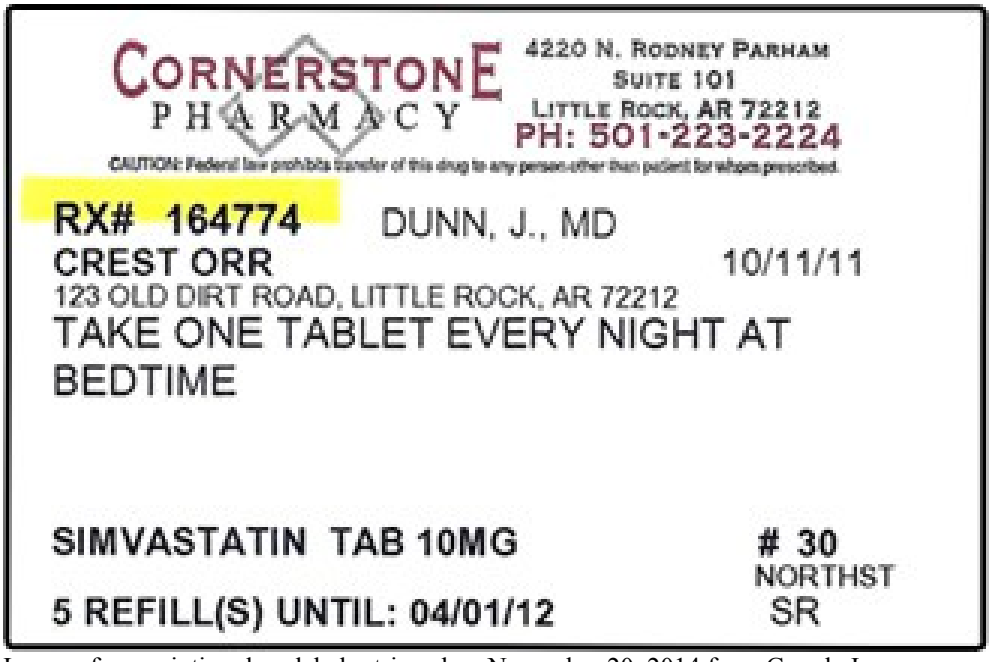


Image of prescription drug label retrieved on November 20, 2014 from Google Images

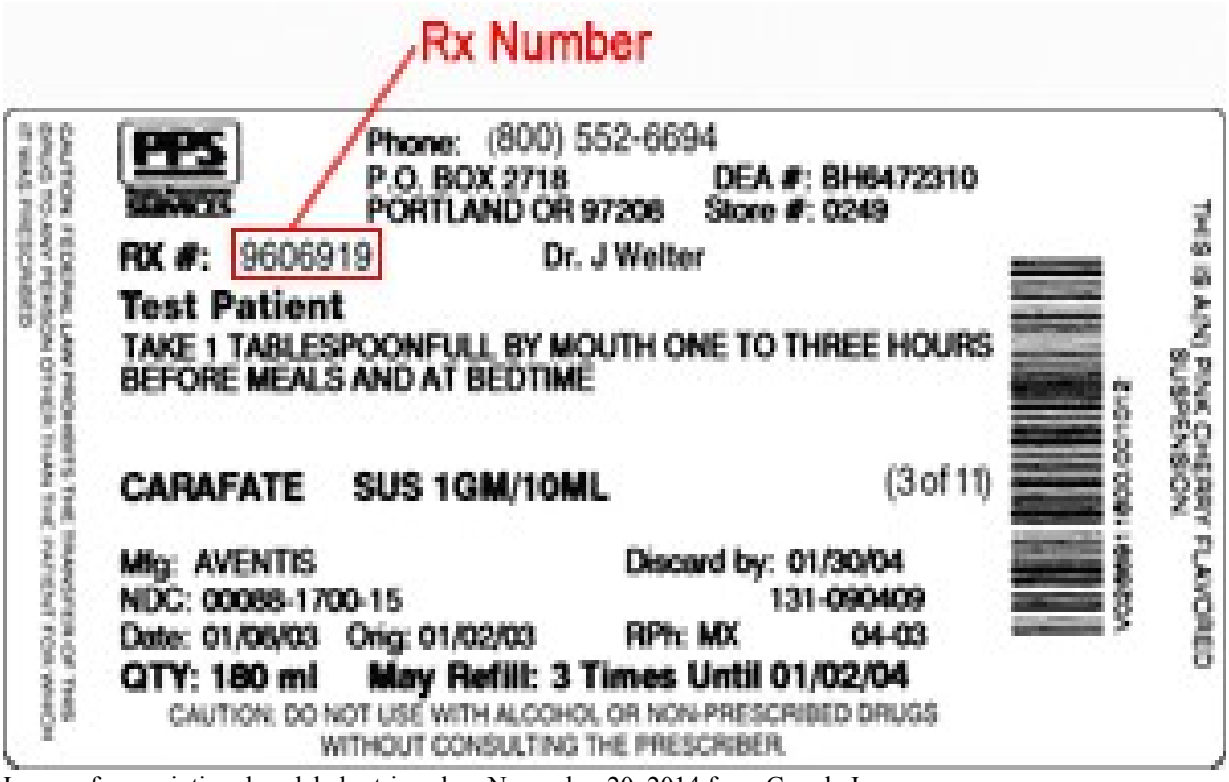


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.11

Image of prescription drug label retrieved on November 20, 2014 from Google Images

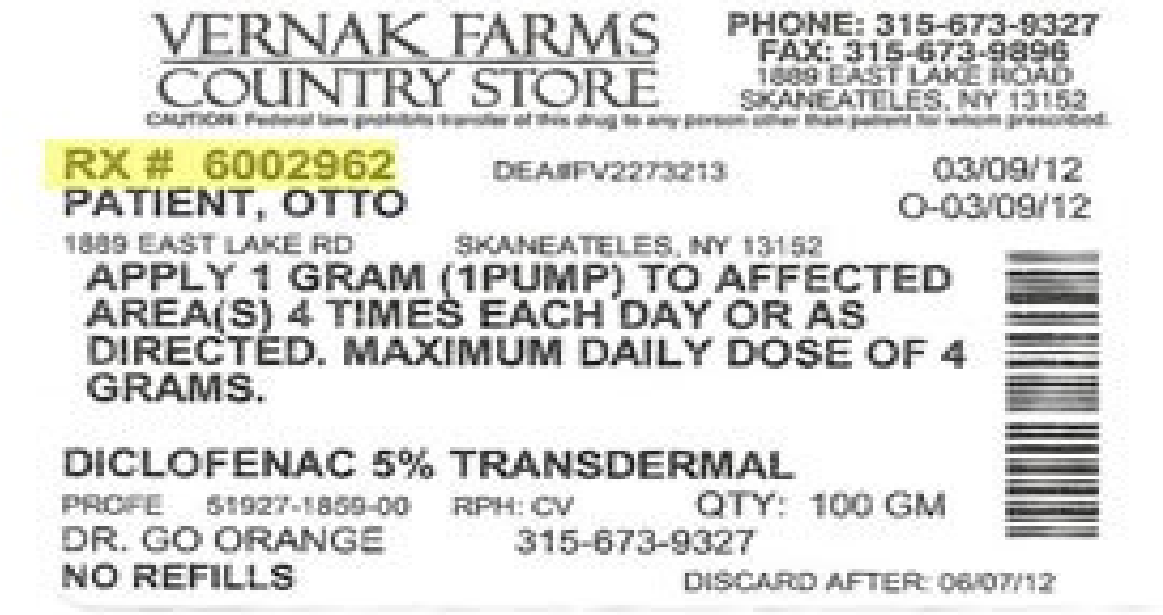


Image of prescription drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.12

Parts of an Over-the-counter Drug Label

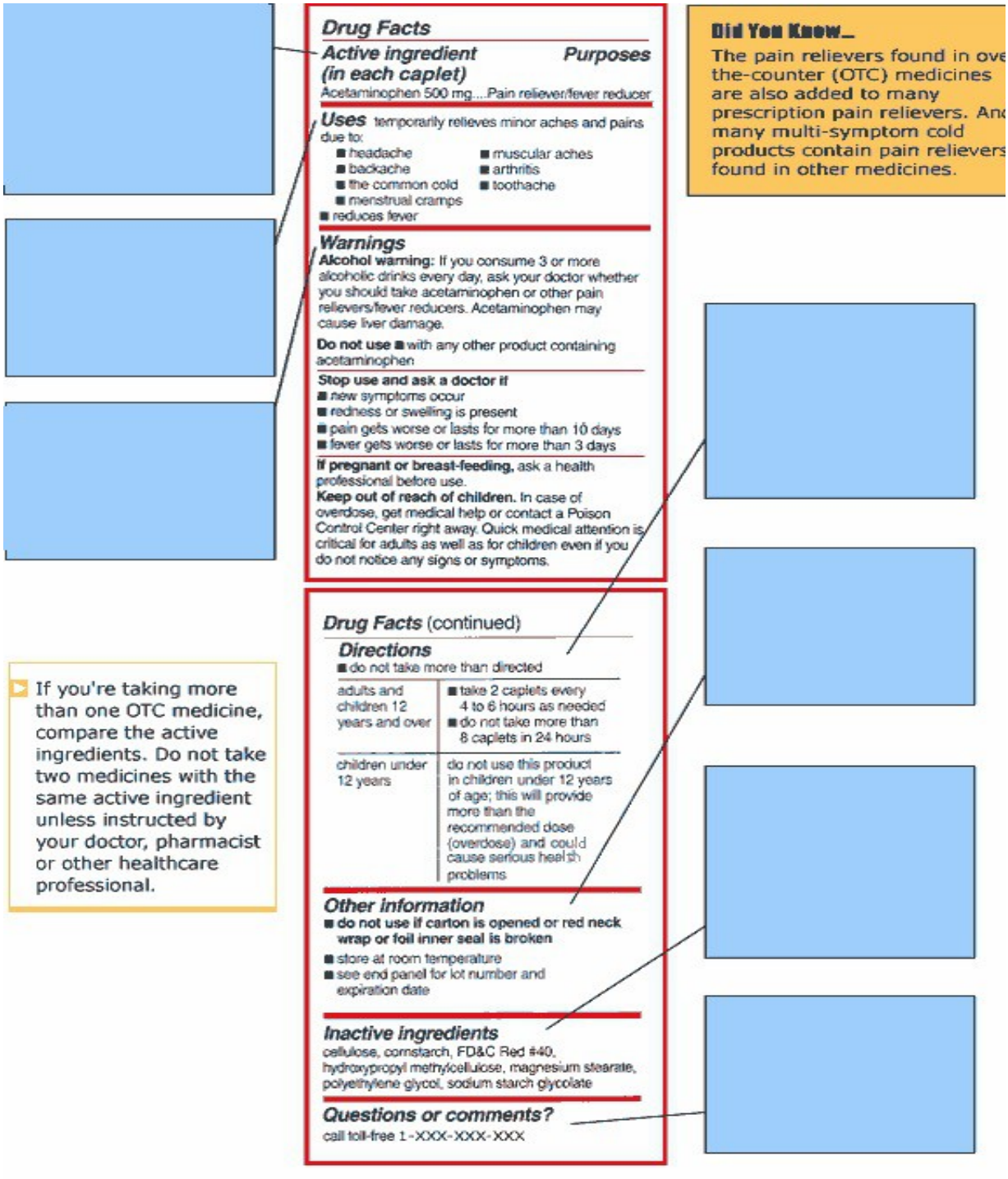


Image of over-the-counter drug label retrieved on November 20.2014 from Google Images

Label the over-the-counter drug label with the appropriate descriptions below.

a) Symptoms that the drug is used to treat.
b) How much of the medicine you should take and how often you should take it.
c) What other medications, foods, or situations to avoid when taking the medicine.
d) Phone number to call if there are problems or comments about the medication.
e) The most important ingredient in the medication. It is the ingredient that helps treat the symptoms.
f) Other instructions for keeping and using the medication (i.e., how to store it)
g) Other ingredients inside the medication.

Handout created by Lee, D. (2014).

Handout 4.1.13

Questions for Over-the-Counter Drug Labels

Look at the over-the-counter drug labels with your partners and fill in the chart below with the information from the labels.

Drug name	What are the MAIN symptoms that the drug is used to treat?	When should you not take the drug? List two situations.	You should stop taking the medication if you have what symptoms? List three.	If you were taking the drug, how much medication would you take with each dose?	How often can you take the drug?	What is the most medication that you can take in one day?	If you were giving the drug to your five-year-old child, how much medication would you give him/her with each dose? How often?
Excedrin	*Minor aches and pain (headache, backache)*	*Allergy to the medicine* *Reye's syndrome (for children)*	*Have an allergic reaction* *Have stomach bleeding* *Pain gets worse*	*2 gelcaps*	*Every 4-6 hours*	*8 gelcaps*	*Ask a doctor before giving the medication to children under 12 years old.*
CVS's Children's Pain Relief Suspension Liquid (acetaminophen)							

Tylenol							
Walgreen's Ibuprofen							
Benadryl Allergy “Liqui-Gel” Capsules							
Children's Benadryl Allergy Liquid Medication							

CVS's Omeprazole							
CVS's Eye Allergy Relief Eye Drops							
Robitussin							
CVS's Cortisone							

Handout created by Lee, D. (2014).

Handout 4.1.14

Over-the-Counter Drug Labels

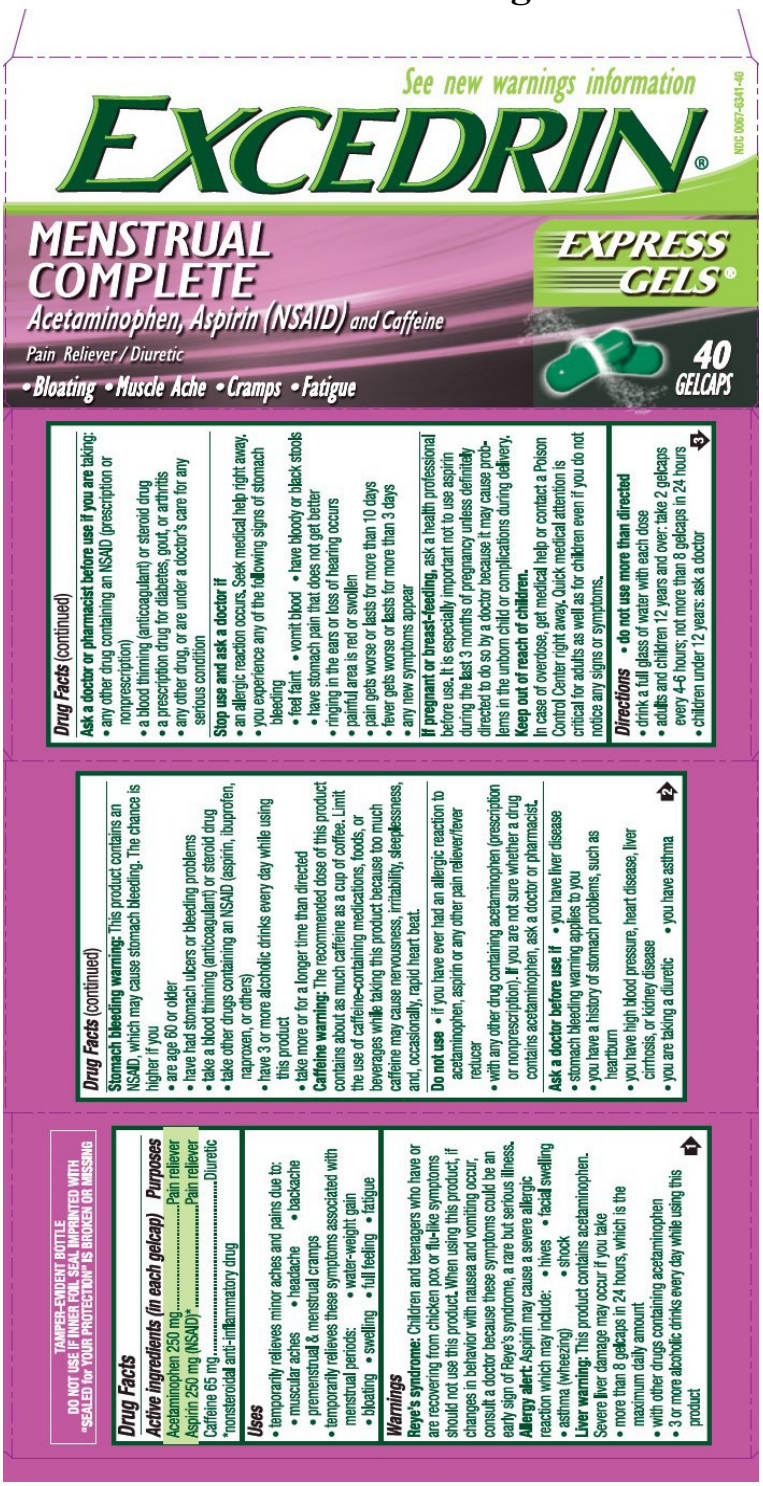


Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.15

Image of over-the-counter-drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.16

Image of over-the-counter-drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.17

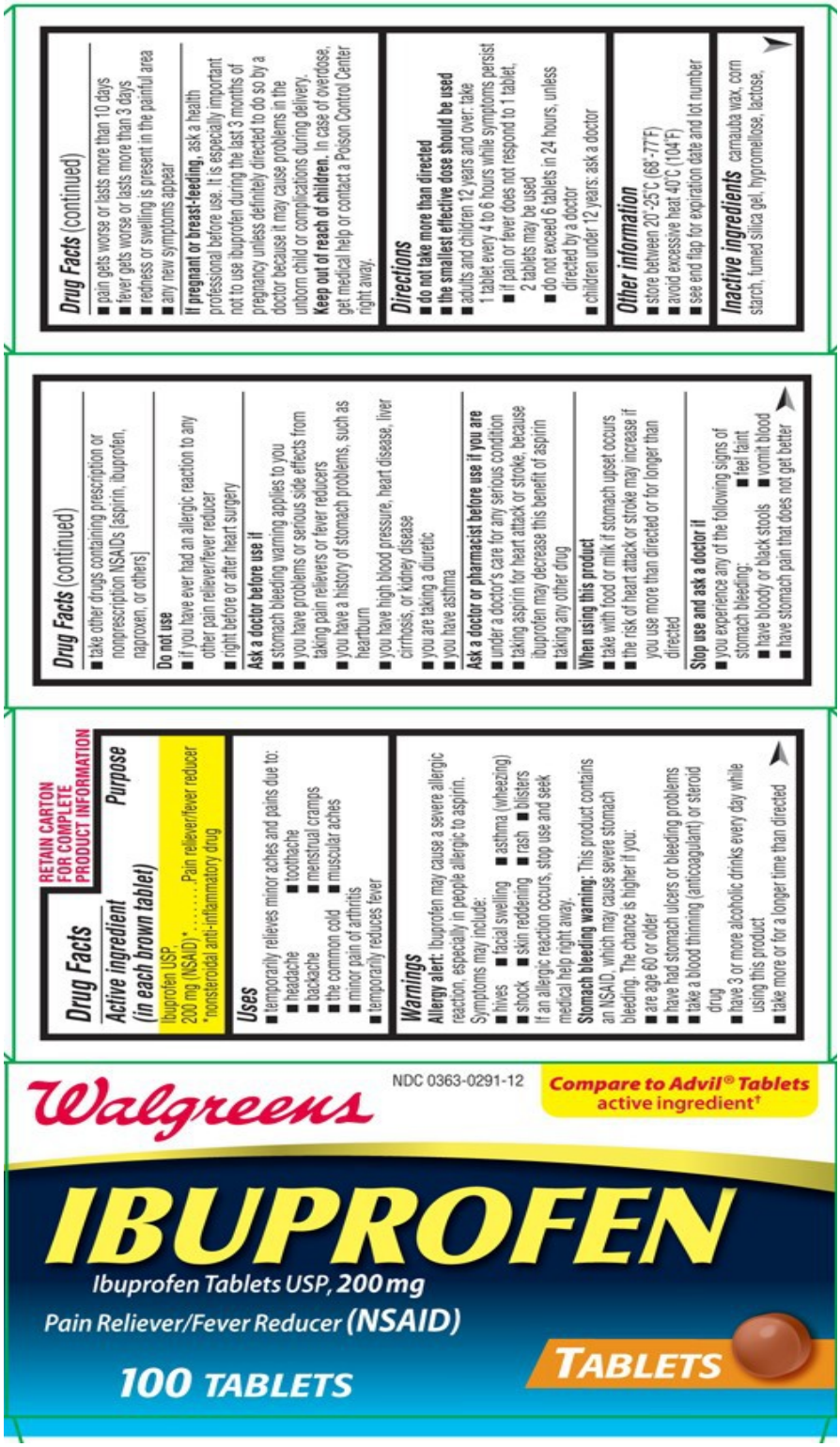


Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.18

Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.19

Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Drug Facts

Active ingredient (in each 5 mL = 1 teaspoonful) — **Purpose**

Diphenhydramine HCl 12.5 mg ..... Antihistamine

Uses

- temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:
  - runny nose
  - sneezing
  - itchy, watery eyes
  - itching of the nose or throat

Warnings

Do not use

- to make a child sleepy
- with any other product containing diphenhydramine, even one used on skin

Ask a doctor before use if the child has

- a breathing problem such as chronic bronchitis
- glaucoma
- a sodium-restricted diet

Ask a doctor or pharmacist before use if the child is taking sedatives or tranquilizers

When using this product

- marked drowsiness may occur
- sedatives and tranquilizers may increase drowsiness
- excitability may occur, especially in children

Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away. (1-800-222-1222)

Directions

- find right dose on chart below
- mL = milliliter; tsp = teaspoonful
- take every 4 to 6 hours, or as directed by a doctor
- do not take more than 6 doses in 24 hours

Age (yr)	Dose (mL or tsp)
children under 2 years	do not use
children 2 to 5 years	do not use unless directed by a doctor
children 6 to 11 years	5 mL (1 tsp) to 10 mL (2 tsp)

Attention: use only enclosed dosing cup specifically designed for use with this product. Do not use any other dosing device.

Other information

- **each 5 mL (1 tsp) contains:** sodium 14 mg
- store between 20-25°C (68-77°F). Protect from light. Store in outer carton until contents used.
- **do not use if bottle wrap, or foil inner seal imprinted "SAFETY SEAL®" is broken or missing**
- see bottom panel for lot number and expiration date

Inactive ingredients

anhydrous citric acid, D&C red no. 33, FD&C red no. 40, flavors, glycerin, monoammonium glycyrrhizinate, poloxamer 407, purified water, sodium benzoate, sodium chloride, sodium citrate, sucrose

Questions or comments?

call 1-877-717-2824

Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout created by Lee, D. (2014).

Handout 4.1.20

Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.21

Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.22

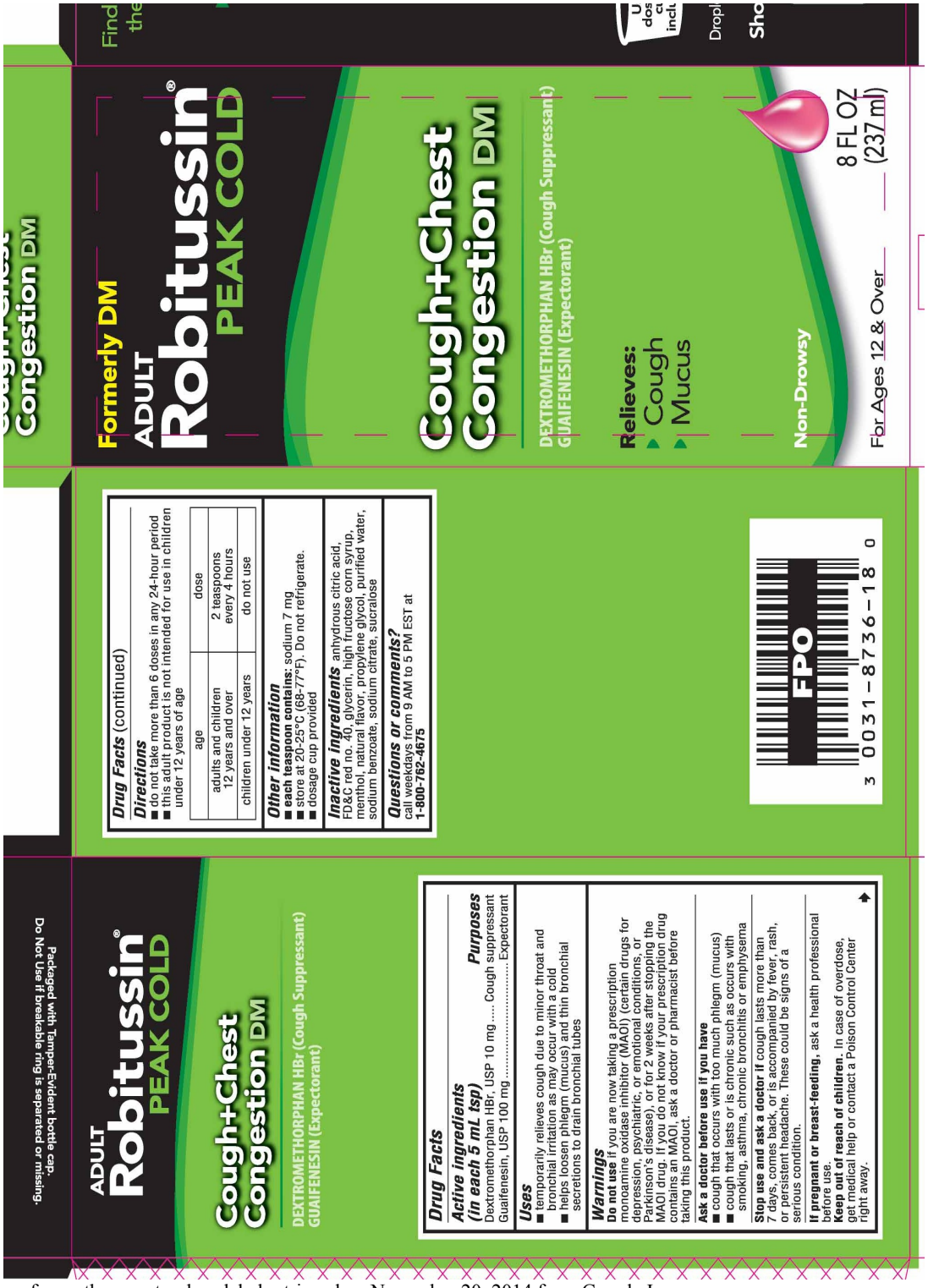


Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Handout 4.1.23

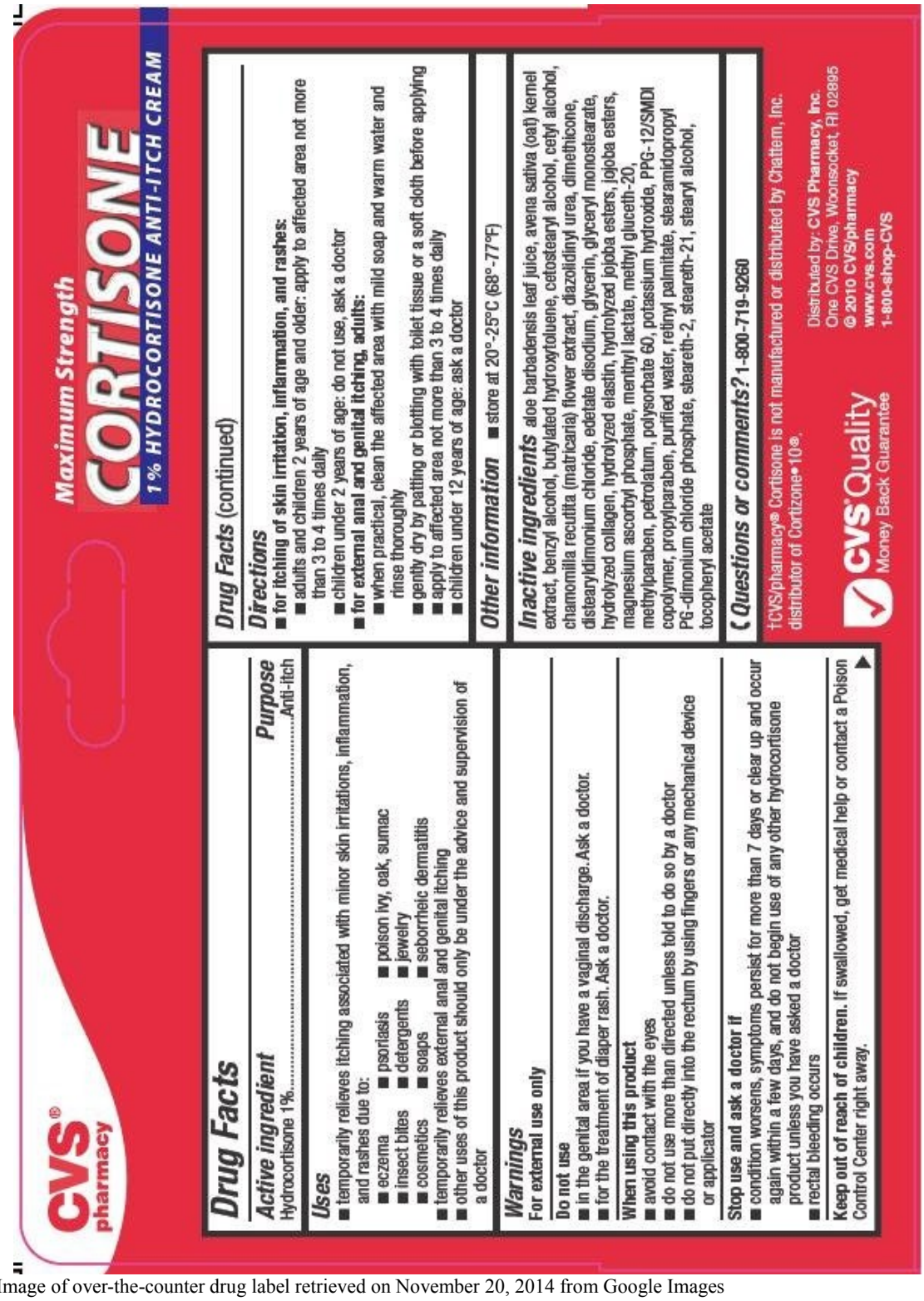


Image of over-the-counter drug label retrieved on November 20, 2014 from Google Images

Unit 5: Forms

Lesson 1: Registration and Health History Forms

Time: 90 minutes
Content Objectives: Fill out registration and health history forms
Language Objectives: Vocabulary related to demographics and personal information
Review the vocabulary of some common medical conditions
Understand the present perfect tense used on medical forms to inquire about past medical conditions
Previous Lesson: Nutrition Information
Next Lesson: Medical Procedure Consent Forms

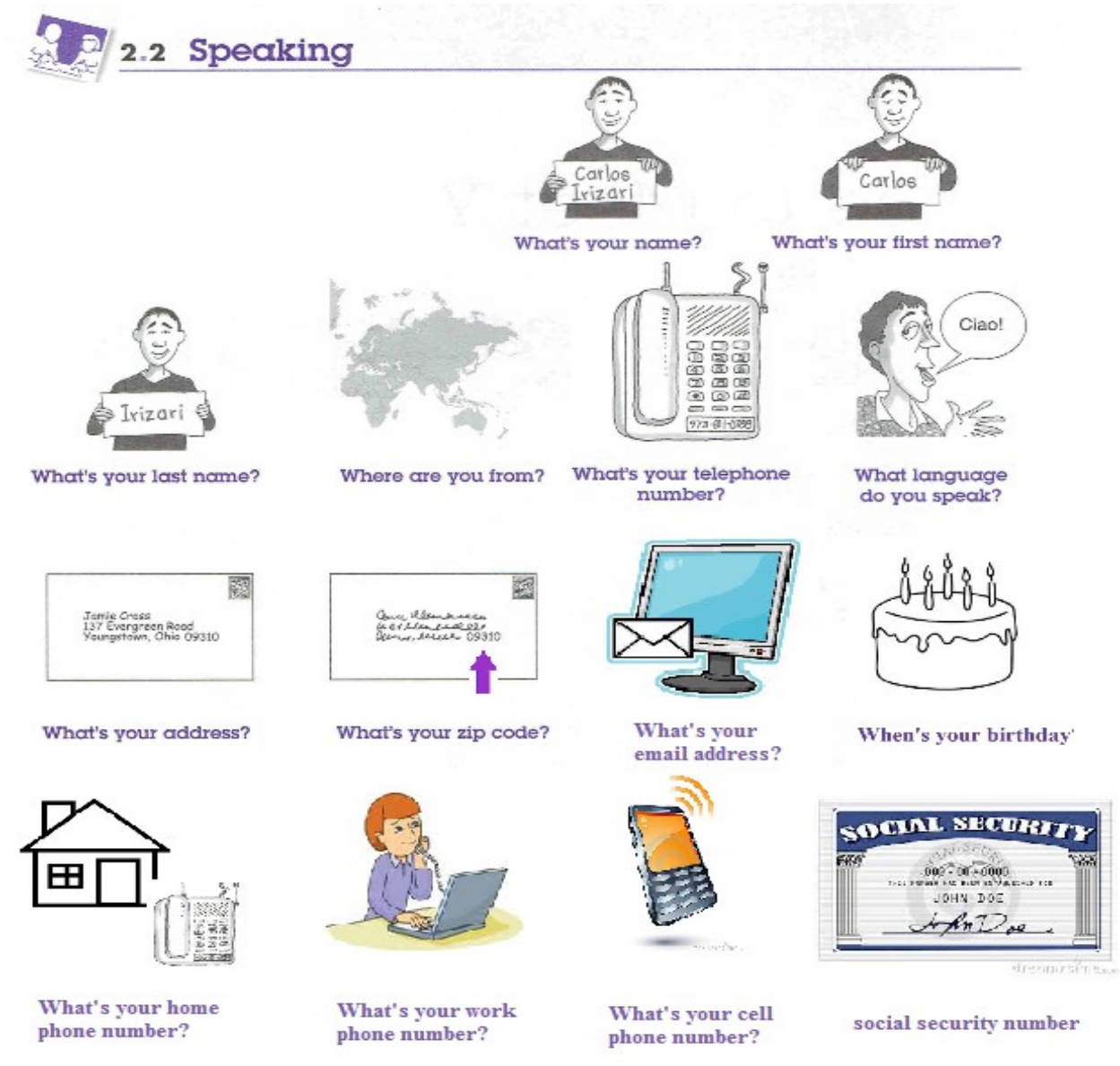
Stage/ Aim	Procedure	Interaction	Materials	Time
Warm-up	Working as a class, students name the kinds of forms that they have to fill out in the medical setting. Teacher writes these on the board.	T-Ss (whole class)		1 min
Warm-up	Teacher pass out demographic vocabulary handout for reference Students write down their own demographic information in the first column of the table on Handout 5.1.2. In groups of four, students ask for each other's demographic information to fill in the rest of the table	 Individual S-S (groups of four)	Handout 5.1.1 with demographic vocabulary Handout 5.1.2 with demographic information questions	5 min
Presentation of vocabulary related to demographic information	Student look at a sample patient registration form that is filled out with a fictitious person's information.	Individual	Handout 5.1.3 with sample patient registration form that is filled out with fictitious information.	15 min

	Students are given a list of information about two other fictitious people. In groups, they have to fill out blank patient registration forms with this information. To check answers, students fill out a large print-out of the patient registration forms.	S-S (groups of three) T-S (whole class)	Handout 5.1.4 of a blank patient registration form Handout 5.1.5 with a list of information two fictitious people. Large printout of handout 5.1.4	
Filling out patient registration forms	Students fill out blank patient registration forms with their own information. Teacher monitors activity. Students check each other's forms in groups of three to make sure that the correct information is put into the correct spaces.	Individual S-S (groups of three)	Handout 5.1.4 of a blank patient registration form	15 min
Review of vocabulary related to medical diagnoses and medical procedures	In groups, students review names of various medical diagnoses from Unit 1, Lesson 3 by matching the names of the medical diagnoses with pictures on a handout. To check answers, students read out their answers to the rest class (Each group reads out one answer).	S-S (groups of four) T-Ss (whole class)	Handout 5.1.6 with names of medical diagnoses and pictures	10 min
Presentation of the present perfect to describe past medical diagnoses and past medical procedures	Students listen to an audio clip of a patient giving a medical history to a health provider. *(They should be familiar with the audio clip since they have listened to it in Unit 1, Lesson 3)* *URL for audio clip: https://www.youtube.com/watch?v=WL5LZhJj5Pk*	Individual	Video of a patient describing his medical history to a health provider	25 min

	In groups, students fill out a blank medical history form with the information from the video clip. Student look at the medical history form and underline all the verbs in the questions. Teacher elicits the purpose of the present perfect form the students.	S-S (groups of four) Individual T-Ss (whole class)	Handout 5.1.7 with a blank medical history form	
Filling out medical history forms	Students fill out two different medical history forms with their own medical history. Teacher monitors activity.	Individual	Handout 5.1.7 (first medical history form) Handout 5.1.8 and Handout 5.1.9 (second medical history form)	20 min
Formative assessment	Students' registration forms (Handout 5.1.4) and medical history forms (Handout 5.1.7 – Handout 5.1.9) filled out with their own information			

Handout 5.1.1

Demographic Information



Andrew Lange Illustration. (Illustrator). (2004). *Nice to meet you vocabulary* [Image]. Out and About. California: Owl Publishing, p .12.

Handout created by Lee, D. (2014).

Handout 5.1.2

Classmate's Demographic Information

Work in groups of four. Write your own information in the first column. Then ask your partners for their demographic information to fill in the rest of the chart.

	Your information	Partner 1	Partner 2	Partner 3
First name				
Last name				
Country				
Telephone number				
Address				
Zip code				
Email address				
Birthday				

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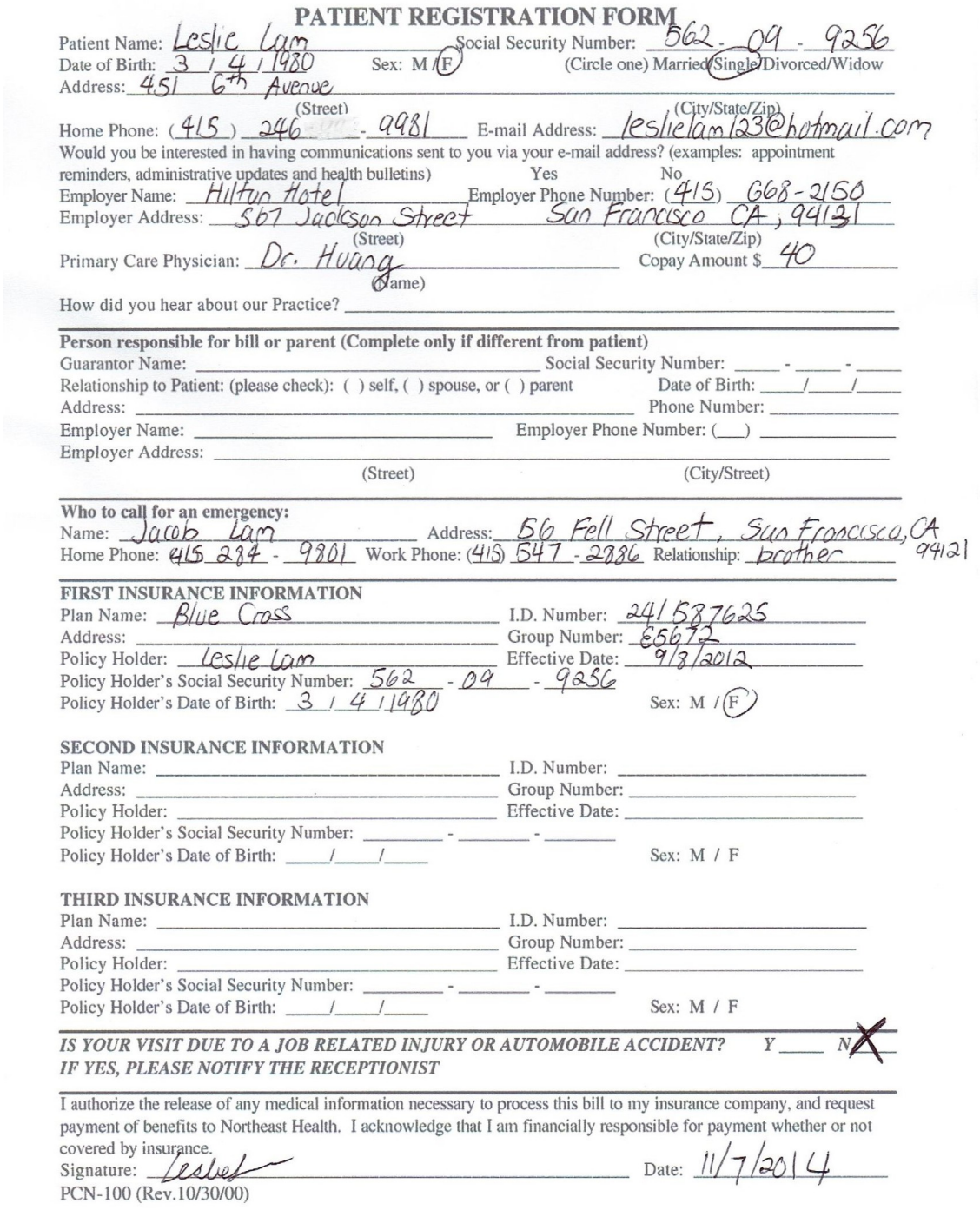
Handout 5.1.3



PATIENT REGISTRATION FORM

Patient Name: Leslie Lam Social Security Number: 562 - 09 - 9256
Date of Birth: 3 / 4 / 1980 Sex: M / (F) (Circle one) Married/(Single)/Divorced/Widow
Address: 451 6th Avenue
(Street)
Home Phone: (415) 246 - 9981 E-mail Address: leslielam123@hotmail.com
(City/State/Zip)
Would you be interested in having communications sent to you via your e-mail address? (examples: appointment reminders, administrative updates and health bulletins) Yes No
Employer Name: Hilton Hotel Employer Phone Number: (415) 668-2150
Employer Address: 567 Jackson Street San Francisco CA, 94131
(Street) (City/State/Zip)
Primary Care Physician: Dr. Huang Copay Amount $ 40
(Name)
How did you hear about our Practice? _____

Person responsible for bill or parent (Complete only if different from patient)
Guarantor Name: _____ Social Security Number: ___ - ___ - ____
Relationship to Patient: (please check): ( ) self, ( ) spouse, or ( ) parent Date of Birth: ___/___/____
Address: _____ Phone Number: _____
Employer Name: _____ Employer Phone Number: (___) _____
Employer Address: _____
(Street) (City/Street)

Who to call for an emergency:
Name: Jacob Lam Address: 56 Fell Street, San Francisco, CA 94121
Home Phone: 415 284 - 9801 Work Phone: (415) 547 - 2886 Relationship: brother

FIRST INSURANCE INFORMATION
Plan Name: Blue Cross I.D. Number: 241587625
Address: _____ Group Number: 65672
Policy Holder: Leslie Lam Effective Date: 9/3/2012
Policy Holder's Social Security Number: 562 - 09 - 9256
Policy Holder's Date of Birth: 3 / 4 / 1980 Sex: M / (F)

SECOND INSURANCE INFORMATION
Plan Name: _____ I.D. Number: _____
Address: _____ Group Number: _____
Policy Holder: _____ Effective Date: _____
Policy Holder's Social Security Number: _____ - _____ - _____
Policy Holder's Date of Birth: ___/___/____ Sex: M / F

THIRD INSURANCE INFORMATION
Plan Name: _____ I.D. Number: _____
Address: _____ Group Number: _____
Policy Holder: _____ Effective Date: _____
Policy Holder's Social Security Number: _____ - _____ - _____
Policy Holder's Date of Birth: ___/___/____ Sex: M / F

IS YOUR VISIT DUE TO A JOB RELATED INJURY OR AUTOMOBILE ACCIDENT? Y ____ N X
IF YES, PLEASE NOTIFY THE RECEPTIONIST

I authorize the release of any medical information necessary to process this bill to my insurance company, and request payment of benefits to Northeast Health. I acknowledge that I am financially responsible for payment whether or not covered by insurance.
Signature: Leslie Date: 11/7/2014
PCN-100 (Rev.10/30/00)

Patient registration form. Retrieved on November 24, 2014 from http://www.gopixpic.com/1275/printable-registration-form-template-free/http:||twobrotherscoatings*co*uk|wp-content|themes|printable-registration-form-template-free-697*png/

Handout created by Lee, D. (2014).

Handout 5.1.4

PATIENT REGISTRATION FORM

Patient Name: _____ Social Security Number: _____-_____-_____
Date of Birth: _____/_____/_____ Sex: M / F (Circle one) Married/Single/Divorced/Widow
Address:_____
(Street) (City/State/Zip)
Home Phone: (_____) _____-_____ E-mail Address: _____
Would you be interested in having communications sent to you via your e-mail address? (examples: appointment reminders, administrative updates and health bulletins) Yes No
Employer Name: _____Employer Phone Number: (_____) _____
Employer Address: _____
(Street) (City/State/Zip)
Primary Care Physician: _____ Copay Amount $_____
(Name)
How did you hear about our Practice? _____

Person responsible for bill or parent (Complete only if different from patient)
Guarantor Name: _____ Social Security Number: _____ - _____ - _____
Relationship to Patient: (please check): ( ) self, ( ) spouse, or ( ) parent Date of Birth: _____/_____/_____
Address: _____ Phone Number: _____
Employer Name: _____ Employer Phone Number: (___) _____
Employer Address: _____
(Street) (City/Street)

Who to call for an emergency:
Name: _____ Address:_____
Home Phone: (__) _____ - _____ Work Phone: (___) _____-_____ Relationship: _____

FIRST INSURANCE INFORMATION
Plan Name: _____ I.D. Number: _____
Address: _____ Group Number: _____
Policy Holder: _____ Effective Date: _____
Policy Holder's Social Security Number: _____ - _____ - _____
Policy Holder's Date of Birth: _____/_____/_____ Sex: M / F

SECOND INSURANCE INFORMATION
Plan Name: _____ I.D. Number: _____
Address: _____ Group Number: _____
Policy Holder: _____ Effective Date: _____
Policy Holder's Social Security Number: _____ - _____ - _____
Policy Holder's Date of Birth: _____/_____/_____ Sex: M / F

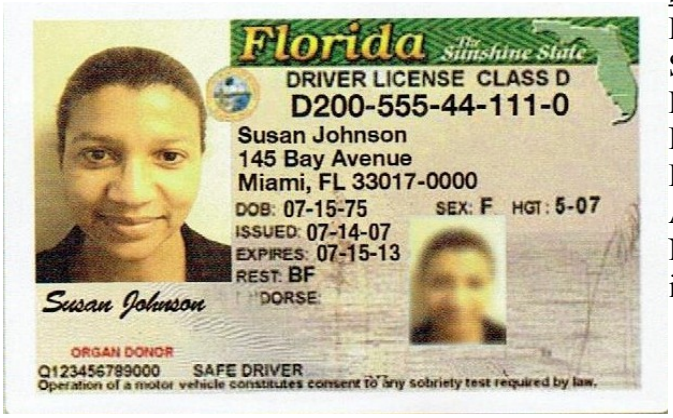
THIRD INSURANCE INFORMATION
Plan Name: _____ I.D. Number: _____
Address: _____ Group Number: _____
Policy Holder: _____ Effective Date: _____
Policy Holder's Social Security Number: _____ - _____ - _____
Policy Holder's Date of Birth: _____/_____/_____ Sex: M / F

IS YOUR VISIT DUE TO A JOB RELATED INJURY OR AUTOMOBILE ACCIDENT? Y _____ N_____
IF YES, PLEASE NOTIFY THE RECEPTIONIST

I authorize the release of any medical information necessary to process this bill to my insurance company, and request payment of benefits to Northeast Health. I acknowledge that I am financially responsible for payment whether or not covered by insurance.
Signature: _____ Date: _____
PCN-100 (Rev.10/30/00)

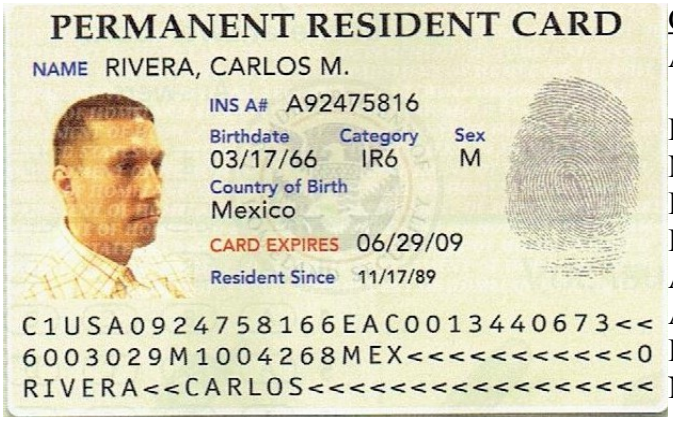
Patient registration form. Retrieved on November 24, 2014 from http://www.gopixpic.com/1275/printable-registration-form-template-free/http:||twobrotherscoatings*co*uk|wp-content|themes|printable-registration-form-template-free-697*png/

Handout 5.1.5



Hill R. E. (Illustrator). (2008). *Forms of identification* [Image]. Side by Side. New York: Pearson Education, p .6c.

Susan Johnson
Home phone: 813-564-2297
Social security:425-62-0987
Marital Status: Married
Email: sjohnson@gmail.com
Employer: Lalani's Diner
Address of Employer: 782 Foxcroft Road
Name of Insurance Company: No insurance



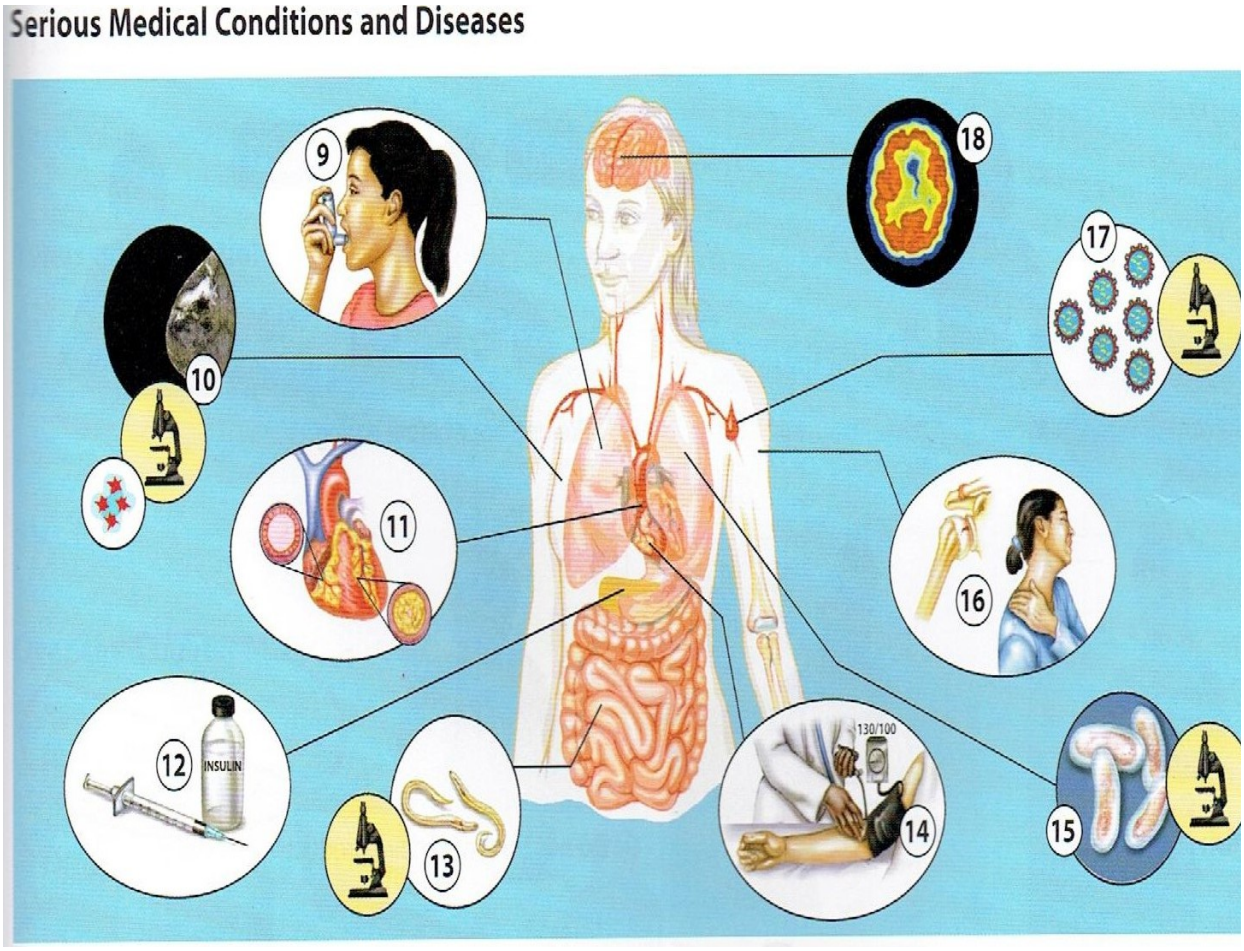
Hill R. E. (Illustrator). (2008). *Forms of identification* [Image]. Side by Side. New York: Pearson Education, p .6c

Carlos Rivera
Address: 567 South Vermont Avenue
Los Angeles, California 95781
Home phone: 310-246-9456
Marital Status: Single
Email: carlosr66@hotmail.com
Employer: FedEx
Address of Employer: 72 Manchester Avenue
Los Angeles, California 95427
Name of Insurance Company: Cigna

Handout created by Lee, D. (2014).

Handout 5.1.6

Match the pictures to the disease below by writing the numbers for the pictures in the blank



O'Keefe, L. (Illustrator). (2008). *Serious medical conditions and diseases* [Illustration]. The Oxford Picture Dictionary. New York: Oxford University Press, p .111.

spaces before the disease names.

____high blood pressure/hypertension	____ heart disease	____cancer
____ arthritis	____ diabetes	____ asthma
____dementia	____ TB (tuberculosis)	
___ intestinal parasites	____HIV (human immunodeficiency virus)	

Handout created by Lee, D. (2014).

Handout 5.1.7

Riverside Family Dentistry

MEDICAL HISTORY

Although dental personnel primarily treat the area in and around your mouth, your mouth is a part of your entire body. Health problems that you may have, or medication that you may be taking, could have an important interrelationship with the dentistry you will receive. Thank you for answering the following questions.

Are you under a physician's care now? ◯ Yes ◯ No If yes, please explain: _____
Have you ever been hospitalized or had a major operation? ◯ Yes ◯ No If yes, please explain: _____
Have you ever had a serious head or neck injury? ◯ Yes ◯ No If yes, please explain: _____
Are you taking any medications, pills, or drugs? ◯ Yes ◯ No If yes, please explain: _____
Do you take, or have you taken, Phen-Fen or Redux? ◯ Yes ◯ No _____
Are you on a special diet? ◯ Yes ◯ No _____
Do you use tobacco? ◯ Yes ◯ No
Do you use controlled substances? ◯ Yes ◯ No

Women: Are you
Pregnant/Trying to get pregnant? ◯ Yes ◯ No Taking oral contraceptives? ◯ Yes ◯ No Nursing? ◯ Yes ◯ No

Are you allergic to any of the following?
☐ Aspirin ☐ Penicillin ☐ Codeine ☐ Acrylic ☐ Metal ☐ Latex ☐ Local Anesthetics
☐ Other If yes, please explain: _____

Do you have, or have you had, any of the following?

AIDS/HIV Positive ◯ Yes ◯ No	Cortisone Medicine ◯ Yes ◯ No	Hemophilia ◯ Yes ◯ No	Renal Dialysis ◯ Yes ◯ No
Alzheimer's Disease ◯ Yes ◯ No	Diabetes ◯ Yes ◯ No	Hepatitis A ◯ Yes ◯ No	Rheumatic Fever ◯ Yes ◯ No
Anaphylaxis ◯ Yes ◯ No	Drug Addiction ◯ Yes ◯ No	Hepatitis B or C ◯ Yes ◯ No	Rheumatism ◯ Yes ◯ No
Anemia ◯ Yes ◯ No	Easily Winded ◯ Yes ◯ No	Herpes ◯ Yes ◯ No	Scarlet Fever ◯ Yes ◯ No
Angina ◯ Yes ◯ No	Emphysema ◯ Yes ◯ No	High Blood Pressure ◯ Yes ◯ No	Shingles ◯ Yes ◯ No
Arthritis/Gout ◯ Yes ◯ No	Epilepsy or Seizures ◯ Yes ◯ No	Hives or Rash ◯ Yes ◯ No	Sickle Cell Disease ◯ Yes ◯ No
Artificial Heart Valve ◯ Yes ◯ No	Excessive Bleeding ◯ Yes ◯ No	Hypoglycemia ◯ Yes ◯ No	Sinus Trouble ◯ Yes ◯ No
Artificial Joint ◯ Yes ◯ No	Excessive Thirst ◯ Yes ◯ No	Irregular Heartbeat ◯ Yes ◯ No	Spina Bifida ◯ Yes ◯ No
Asthma ◯ Yes ◯ No	Fainting Spells/Dizziness ◯ Yes ◯ No	Kidney Problems ◯ Yes ◯ No	Stomach/Intestinal Disease ◯ Yes ◯ No
Blood Disease ◯ Yes ◯ No	Frequent Cough ◯ Yes ◯ No	Leukemia ◯ Yes ◯ No	Stroke ◯ Yes ◯ No
Blood Transfusion ◯ Yes ◯ No	Frequent Diarrhea ◯ Yes ◯ No	Liver Disease ◯ Yes ◯ No	Swelling of Limbs ◯ Yes ◯ No
Breathing Problem ◯ Yes ◯ No	Frequent Headaches ◯ Yes ◯ No	Low Blood Pressure ◯ Yes ◯ No	Thyroid Disease ◯ Yes ◯ No
Bruise Easily ◯ Yes ◯ No	Genital Herpes ◯ Yes ◯ No	Lung Disease ◯ Yes ◯ No	Tonsillitis ◯ Yes ◯ No
Cancer ◯ Yes ◯ No	Glaucoma ◯ Yes ◯ No	Mitral Valve Prolapse ◯ Yes ◯ No	Tuberculosis ◯ Yes ◯ No
Chemotherapy ◯ Yes ◯ No	Hay Fever ◯ Yes ◯ No	Pain in Jaw Joints ◯ Yes ◯ No	Tumors or Growths ◯ Yes ◯ No
Chest Pains ◯ Yes ◯ No	Heart Attack/Failure ◯ Yes ◯ No	Parathyroid Disease ◯ Yes ◯ No	Ulcers ◯ Yes ◯ No
Cold Sores/Fever Blisters ◯ Yes ◯ No	Heart Murmur ◯ Yes ◯ No	Psychiatric Care ◯ Yes ◯ No	Venereal Disease ◯ Yes ◯ No
Congenital Heart Disorder ◯ Yes ◯ No	Heart Pace Maker ◯ Yes ◯ No	Radiation Treatments ◯ Yes ◯ No	Yellow Jaundice ◯ Yes ◯ No
Convulsions ◯ Yes ◯ No	Heart Trouble/Disease ◯ Yes ◯ No	Recent Weight Loss ◯ Yes ◯ No	

Have you ever had any serious illness not listed above? ◯ Yes ◯ No If yes, please explain: _____

Comments: _____

To the best of my knowledge, the questions on this form have been accurately answered. I understand that providing incorrect information can be dangerous to my (or patient's) health. It is my responsibility to inform the dental office of any changes in medical status.

SIGNATURE OF PATIENT, PARENT, or GUARDIAN _____ DATE _____

Medical history form. Retrieved on November 20, 2014 from http://www.rfdmacon.com/images/Medical%20History%20Form.jpg

Handout 5.1.8

FIGURE 8.2
Medical history form for use in dental practice

Medical History Form Date _____

Name _____ Home Phone (____) _____

Address (Last First Middle) _____ Business Phone (____) _____

City (Number, Street) _____ State _____ Zip Code _____

Occupation _____ Social Security No. _____

Date of Birth ____/____/____ Sex M F Height _____ Weight _____ Single _____ Married _____

Name of Spouse (mo. day yr.) _____ Closest Relative _____ Phone (____) _____

If you are completing this form for another person, what is your relationship to that person? _____

Referred by _____

For the following questions, *circle yes or no,* whichever applies. Your answers are for our records only and will be considered confidential. Please note that during your initial visit you will be asked some questions about your responses to this questionnaire and there may be additional questions concerning your health.

1. Are you in good health? Yes No
2. Has there been any change in your general health within the past year? Yes No
3. My last physical examination was on _____
4. Are you now under the care of a physician? Yes No
   If so, what is the condition being treated? _____
5. The name and address of my physician(s) is _____
6. Have you had any serious illness, operation, or been hospitalized in the past 5 years? Yes No
   If so, what was the illness or problem? _____
7. Are you taking any medicine(s) including non-prescription medicine? Yes No
   If so, what medicine(s) are you taking? _____
8. Do you have or have you had any of the following diseases or problems?
   a. Damaged heart valves or artificial heart valves, including heart murmur or rheumatic heart disease Yes No
   b. Cardiovascular disease (heart trouble, heart attack, angina, coronary insufficiency, coronary occlusion, high blood pressure, arteriosclerosis, stroke) Yes No
      1. Do you have chest pain upon exertion? Yes No
      2. Are you ever short of breath after mild exercise or when lying down? Yes No
      3. Do your ankles swell? Yes No
      4. Do you have inborn heart defects? Yes No
      5. Do you have a cardiac pacemaker? Yes No
   c. Allergy Yes No
   d. Sinus trouble Yes No
   e. Asthma or hay fever Yes No
   f. Fainting spells or seizures Yes No
   g. Persistent diarrhea or recent weight loss Yes No
   h. Diabetes Yes No
   i. Hepatitis, jaundice, or liver disease Yes No
   j. AIDS or HIV infection Yes No
   k. Thyroid problems Yes No
   l. Respiratory problems, emphysema, bronchitis, etc. Yes No
   m. Arthritis or painful swollen joints Yes No
   n. Stomach ulcer or hyperacidity Yes No
   o. Kidney trouble Yes No
   p. Tuberculosis Yes No
   q. Persistent cough or cough that produces blood Yes No
   r. Persistent swollen glands in neck Yes No
   s. Low blood pressure Yes No
   t. Sexually transmitted disease Yes No
   u. Epilepsy or other neurological disease Yes No
   v. Problems with mental health Yes No
   w. Cancer Yes No
   x. Problems of the immune system Yes No
9. Have you had abnormal bleeding? Yes No
   a. Have you ever required a blood transfusion? Yes No

(over)

Medical history form. Retrieved on November 20, 2014 from http://www.nidcr.nih.gov/datastatistics/surgeongeneral/sgr/figures/fig82.htm

Handout 5.1.9

FIGURE 8.2 continued

10. Do you have any blood disorder such as anemia? ..... Yes No
11. Have you ever had any treatment for a tumor or growth? ..... Yes No
12. Are you allergic or have you had a reaction to:
    a. Local anesthetics ..... Yes No
    b. Penicillin or other antibiotics ..... Yes No
    c. Sulfa drugs ..... Yes No
    d. Barbiturates, sedatives, or sleeping pills ..... Yes No
    e. Aspirin ..... Yes No
    f. Iodine ..... Yes No
    g. Codeine or other narcotics ..... Yes No
    h. Other _____
13. Have you had any serious trouble associated with any previous dental treatment? ..... Yes No
    If so, explain _____
14. Do you have any disease, condition, or problem not listed above that you think I should know about? ..... Yes No
    If so, explain _____
15. Are you wearing contact lenses? ..... Yes No
16. Are you wearing removable dental appliances? ..... Yes No
17. Do you currently use tobacco of any type? ..... Yes No
    If so, which type? _____
18. Are you a former tobacco user? ..... Yes No
    If so, which type of tobacco? _____
19. How many years have/did you use tobacco? _____
20. How much tobacco do/did you use a day? _____
21. If you have stopped using tobacco products, how long ago did you stop? _____
22. Have you ever used alcoholic beverages? ..... Yes No
23. How long ago did you stop using alcoholic beverages? _____
24. Do you currently use alcoholic beverages? ..... Yes No
25. If so, which type? _____
25. How many times a week do you use alcoholic beverages? _____

Women

26. Are you pregnant? ..... Yes No
27. Do you have any problems associated with your menstrual period? ..... Yes No
28. Are you nursing? ..... Yes No
29. Are you taking birth control pills? ..... Yes No

Chief Dental Complaint _____

I certify that I have read and understand the above. I acknowledge that my questions, if any, about the inquiries set forth above have been answered to my satisfaction. I will not hold my dentist, or any other member of his/her staff, responsible for any errors or omissions that I may have made in the completion of this form.

Signature of Patient _____

Medical history form. Retrieved on November 20, 2014 from http://www.nidcr.nih.gov/datastatistics/surgeongeneral/sgr/figures/fig82.htm

CHAPTER IV
CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The purpose of this project is to create a curriculum that English-as-a-second-language (ESL) teachers can implement to improve the English language proficiency and the health literacy skills of adult ESL speakers with limited English proficiency residing in the United States.

Many ESL speakers who have limited English proficiency in the United States also have low levels of health literacy. These individuals have difficulties understanding written and verbal health information and expressing their medical concerns to health care providers. They may also be discouraged from seeking health care because of these reasons. In addition, they may lack knowledge of health resources and be unable to seek health information. All of this negatively affects the health promotion and disease management practices of these individuals, resulting in less than optimal health and poorer health outcomes. Moreover, the ability of an ESL speaker to obtain, comprehend, and utilize medical information not only affects the individual ESL speaker, but any family members that the person may be trying to obtain medical care for (Coren et al., 2009; Diehl, 2011; Kung, 2004; Mui et al., 2007; Sentell & Braun 2012; Singleton & Krause, 2009; Wilson et al., 2005). All of these factors subsequently contribute to the existing health disparities in the United States between adults with limited English proficiency and adults who are fluent in English.

For this field project, a content-based ESL curriculum with health literacy as the focus was created to develop students' English proficiency and health literacy. Through the curriculum, students learn how to perform essential health literacy skills such communicating with doctors,

reading written health information, deciphering medication labels, and filling out forms. They learn the English language necessary for performing these skills by practicing with authentic health information materials and re-enacting health care encounters in the classroom. Students also work collaboratively to identify and share health information and health resources as well as create original health information materials for themselves and other ESL speakers.

This curriculum is designed to be implemented by teachers in various ESL education and adult education settings. As such, it provides the resources and materials for these teachers to address the health literacy needs of their ESL students. Teachers can implement the whole curriculum for a comprehensive course on health literacy. They can also implement a single unit or a single lesson to address a specific health literacy skill or health literacy domain. The lessons that are included with the curriculum include detailed lesson plans and all the associated materials so that teachers have to do a minimal work in terms of gathering materials and planning the sequence of activities.

Community programs, such as community health clinics or community centers, that are not specifically ESL education programs may also benefit from this curriculum. Some of these programs serve many non-native English speakers. This curriculum can be a resource for these programs to improve the health literacy and English language skills of the populations that they serve. The curriculum and its materials are comprehensive and detailed enough to be implemented by people who are not formally trained in education. Just like teachers in ESL education settings, the staff and directors of these community programs can implement the whole curriculum over the course of several weeks or implement a specific lesson or unit to address the unique needs of their communities.

This curriculum also has many benefits for learners. After going through the curriculum, students should be better able to understand medical information, instructions, and treatment recommendations from health care providers. They should also be more competent in expressing their medical concerns after developing the language necessary to fulfill this function. In addition, they will have an increased ability to read and comprehend written medical information after analyzing these materials in class and expanding their vocabulary of the medical terms commonly employed in these texts. Likewise, they should have an increased ability to comprehend and analyze the information found on medication and nutrition labels. Furthermore, they will be more knowledgeable about community health resources after sharing resources with each other and conducting research on the Internet. They should also have an easier time accessing health services and health care payment programs after practice deciphering information and filling out the forms necessary to apply for these programs.

By being able to perform all the health literacy skills listed above, ESL speakers will be better able to make appropriate health decisions to promote and maintain their own health as well as the health of any family members that they are taking care of. When ESL-speakers can access and process information about health and health services, participation in preventative care and compliance with medical treatments will hopefully increase, subsequently reducing the incidence and severity of illnesses among these individuals. In this way, this project contributes to the larger goal of improving health outcomes for ESL speakers residing in the United States. This will also address health disparities between those who can speak English fluently and those who cannot.

In a similar vein, this project is also beneficial for health care providers in the United

States. By improving the English proficiency and health literacy skills of ESL speakers who may be patients in the health care system, medical professionals will be better able to communicate with patients. This will hopefully lead to fewer instances of misunderstanding between health care providers and health care recipients. Patient compliance with treatment recommendations will increase since these patients will be more able to understand and process medical instructions. Furthermore, when these individuals face fewer language barriers to obtaining care, they will hopefully seek more routine and preventative care, which will decrease the frequency of severe medical illnesses. This will subsequently result in the better use and allocation of health care resources.

Recommendations

This chapter ends with some recommendations regarding the implementation of this project as well as some solutions for dealing with problems that may arise. First, this chapter gives recommendations regarding techniques and approaches for the classroom. Second, I will discuss some solutions to the difficulties that students may have with the authentic materials of the curriculum. Third, I will discuss the role of translation and students' first language in dealing with health literacy matters. Next, I will discuss ways to develop ESL teachers' familiarity and confidence with teaching health literacy. Subsequently, I will discuss the lack of technological resources that may impede the implementation of certain parts of the curriculum. Finally, this chapter will discuss ways to disseminate the health education materials that students create in class and thus reach ESL-speaking audiences outside of the classroom.

Sociocultural theory was an integral part of the theoretical framework for this project. In line with the social, collaborative, and learner-centered aspects of sociocultural theory, teachers

should allow students to work collaboratively and give students maximum responsibility for their learning. Students should be encouraged to help each other and work in groups to complete tasks and activities. Peers can learn from each other and develop their language skills while communicating with each other. Students will usually possess knowledge about community health resources and ways to deal with common health problems, which they can share with the teacher and other students. Furthermore, interactions between teachers and students should focus on students' development. Classroom activities should be carried out in a way so that students do most of the speaking, reading, writing, and listening. Techniques to achieve student-centeredness such as reflecting questions, encouraging self-correction of errors, allowing students to figure out language functions and forms, allowing students to identify their own language problems and solutions, and incorporating student feedback regarding class content, activities, and structure should be employed whenever possible. This will all hopefully lead to maximal language development for the students.

Although students should be encouraged to help each other and be given responsibility for their own language development, teachers should offer guidance whenever necessary. One problem that students may face is difficulty comprehending the language of the authentic health materials employed in the curriculum. This includes the health education handouts and brochures, online health information websites, printed discharge instructions, patient bill of rights, medical procedure consent forms, patient registration forms, health insurance forms, and health history forms. The language on these documents can be complex and jargon-ladened. Moreover, the documents that students encounter in the health care setting will look different from the ones that students work with in class. Different health care settings usually have

different formats for the same types of documents. For example, patient registration and medical history forms will vary from institution to institution. Two different health education brochures on the same medical condition may employ different language even if the health information is the same.

One technique for teachers to address these problems is to focus on the main points of these documents and focus on the language that is common to many of these documents when analyzing them in class. For example, although the exact language on health information handouts and web pages will vary depending on the author and on the medical condition being described, most of these handouts and web pages will be organized into the same categories based on the causes, risk factors, symptoms, prevention, and treatment of the condition. Likewise, even though medical history and patient registration forms will have different formats depending on the health care setting, most of these forms ask for the same information. Most medical history forms will ask about allergies and past and current medical diagnoses. Most patient registration forms will ask for the patient's basic demographic information and health insurance information. Therefore, teachers can guide students to focus on the general language features that are common to many of these materials instead of focusing on the vocabulary that is specific to a handout or form.

Another solution to this problem of possible mismatch between authentic materials and students' English reading ability is to give students good sources of simplified health information. If the materials included in this curriculum are too difficult for students, perhaps the teacher can guide students in the analysis of simpler health education materials. Some good websites for simple English health information are the U.S. National Library of Medicine's

website at http://www.nlm.nih.gov/medlineplus/all_easytoread.html, the American Academy of Family Physician's website at http://familydoctor.org, and The U.S. Department of Health and Human Services website at http://www.healthfinder.gov/. All of these websites have health education materials organized by health topics or medical conditions. Some clinics or hospitals that serve a lot of patients with low levels of literacy may also have printed health education materials that are written in simplified English or plain language. Plain language materials include language that is easy to understand and avoids complex structures or jargon.

Teachers should also teach students to use references like the dictionary or the encyclopedia to look up important words that they do not understand when they encounter printed health materials. The online Longman's Dictionary is a free, learner-friendly resource for ESL speakers. The definitions are clear, succinct, and sometimes supplemented by pictures to aid comprehension. If students are in an actual medical setting, students can also ask for information from health providers regarding the printed health information that they do not understand.

Yet another possible solution is to let students identify reliable sources of health information in their own language. While the purpose of this course is to develop students' English skills in conjunction with health literacy, it is more important that students understand the health information that they encounter in regards to students' health and well-being. Therefore, if it is necessary for students to access information in their native language, then the teacher should guide and support the students in this endeavor.

Moreover, for difficult readings and difficult activities, students in the classroom who speak the same first language can work together to help each other understand the information that they are presented with. These students may be able to explain hard-to-understand health

information to each other in clear and succinct ways using their native language. These students can also use their native language to discuss health care experiences and issues that they may not yet be able to discuss in their second language.

Likewise, students should be taught to ask for translation for either verbal or printed health communication whenever necessary in the clinical setting. While teachers may be hesitant to encourage the use of translation in the classroom due to current research and approaches in language teaching, students should not be discouraged from asking for and utilizing translation in the health care setting. It is very important for ESL-speakers to be able to understand the health information that they are presented with and to accurately express themselves to health care providers. For example, if an ESL patient encounters the word “allergy” on a form and does not know what the word means, it is important for the patient to ask for translation if necessary. This will ensure that the proper information is conveyed to avoid exposing patients to an allergen and causing a potentially serious allergic response. While this curriculum covers a lot of language that is employed in the health care setting, it does not cover all the vocabulary and language forms that students will encounter. There are many medical conditions, medical procedures, and pharmaceuticals in existence, and even most native-English speakers often have trouble understanding all the information that they are presented with in the medical setting. It is the job of the health professional to explain health information, so students should ask questions whenever necessary. In summary, my third recommendation is for teachers to encourage students to ask questions from their health providers and utilize whatever resources are available, including translation, to understand health information.

Another problem identified in the review of the literature is teachers' unfamiliarity with

the topic of health literacy or unfamiliarity with how to teach health literacy. One solution is to consult various online and print resources. For information about specific health conditions, the three health information websites that were mentioned previously in this "Recommendations" section are good resources. In addition, the Centers for Disease Control and Prevention's website at http://www.cdc.gov/healthliteracy/learn/resources.html lists a lot of government reports, research articles, and websites that give more information about the topic of health literacy. It also has articles related to health literacy of older adults. The Office of Disease Prevention and Health Promotion's website at http://www.health.gov/communication/literacy/#overview gives a brief definition of health literacy, reports on the topic, tools to promote health literacy, and links to other resources. The tools section provides resources for designing easy-to-understand health information materials, evaluating the understandability of existing materials, assessing individuals' level of health literacy, designing an action plan to address the issue of health literacy, and communicating with various populations with low levels of health literacy. Furthermore, the U.S. Department of Health and Human Services has a simple online tutorial on health literacy at http://www.hrsa.gov/publichealth/healthliteracy/. This tutorial is designed for health professionals, but it contains good information about health literacy and about how to improve communication with individuals who have low levels of health literacy.

Moreover, teachers will learn about health literacy in the process of implementing the health literacy curriculum. Teachers can learn the content along with students in a collaborative environment. However, although the teachers don't have to be experts on health literacy, the teachers should be able to assist students in deciphering and analyzing the language in verbal and printed health information. They should also be able to scaffold students in producing the oral

and written language necessary to communicate important health information.

Another possible problem with the implementation of this curriculum is that there is much health information online, but immigrant students who are economically marginalized may not have access to technology to access the information that is available. Moreover, many activities of the curriculum, particularly the activities in Unit 2, utilize the Internet to find health information or to locate community health resources. If the place where this curriculum is being implemented does not have computers, students will not be able to partake in these activities. One solution to this problem is to identify public places in the community where student can access the Internet for free. Most public libraries in the United States have computers for library card holders to use. Many community centers also have computers for people to use. However, these community centers usually cater to a certain population such as people of a certain age group or a certain ethnicity, so the teacher may have to find out who can use the resources at these centers. Once places for students to access technology are identified, the teacher and students can go there together initially to familiarize themselves with how to utilize the resource.

If there are some technological resources available, it will be beneficial to maximize the use of these resources. For example, if the location where the health literacy curriculum is being implemented has a few computers, it will be helpful for the teacher to advocate for the computers to be made available to students as much as possible so that students can research health information outside of class time. In addition, if a few students in the class have computers, perhaps they will be willing to share the use of their computers with the students who do not have computers.

Teachers can also identify places in the community where students can easily retrieve

printed health information if online health information is not available. Many community clinics and hospital-based outpatient services will have a lot of informational handouts and brochures on a variety of health topics. Usually students will not have to make an appointment to utilize these resources. Similar to visiting the local library or community center to familiarize students with using technological resources, teachers and students can visit these health centers to gather printed health resources together.

The last recommendation of this section concerns the original health education materials that students create in Lesson 2 of Unit 3. In this lesson, students work in groups to research a health topic of their choosing and create an educational handout or brochure for other ESL speakers. This application of their research helps with the learning and retention of information for students. Furthermore, the created materials may be valuable sources of health information for other ESL speakers outside of the classroom since they include content that was identified as relevant and include language that was formulated by ESL speakers themselves.

After verification of the accuracy of the information by teachers or by peers, these health educational materials can be photocopied or printed for students to disseminate to friends, family members, and acquaintances. The teacher can also create an online blog or web page to post the materials. If the curriculum is implemented multiple times with different students, this online collection can become an extensive repository of health information for ESL speakers. Furthermore, students and teachers can also give printed copies to receptive clinics or health centers that serve many ESL-speaking immigrants.

In summary, this recommendations section addressed some techniques for implementing the curriculum and gave possible solutions to problems that may occur. In terms of classroom

approaches to implementing the lesson plans, it is recommended that teachers employ a student-centered, collaborative approach. In addition, while teachers may choose not to employ translation in the classroom in order to maximize students' English language development, teachers should not discourage students from using translation services in the actual health care setting when it is available. Problems that may occur with the implementation of the curriculum include mismatch of students English language abilities to the authentic health materials, teachers' lack of familiarity with teaching health literacy, and lack of technological resources to carry out certain parts of the curriculum. Solutions to each of these problems are described above. Finally, it is recommended that students and teachers utilize the student-created health materials as health resources for other ESL speakers in the community. This will allow the project to reach a broader audience of ESL speakers who may also have low levels of health literacy.

In the future, additional units and lessons dealing with other aspects of health literacy may be added to the curriculum. There are many aspects to health literacy, and many skills are necessary to function in the health care setting in the United States. This curriculum by no means covers all the skills needed for ESL speakers to access health services and comprehend health information. After the curriculum has been implemented, teachers and students may identify additional areas of health literacy that needs to be addressed. Teachers and students may also identify aspects of the curriculum that need to be expanded to more effectively address a particular health literacy domain.

Furthermore, additional ways to reach ESL-speaking audiences outside of the classroom should be identified. There are many ESL-speakers who do not have the time or resources to take

classes, but who also have trouble obtaining, comprehending, and utilizing health information and health services due to language barriers. Perhaps the curriculum can focus even more on empowering the ESL students who are developing their health literacy to disseminate health information to other members of their community and to advocate for the health of others in their community.

Evaluation Plan

To determine the effectiveness of this health literacy curriculum, a study has been designed to measure changes in levels of health literacy among ESL student who are exposed to the curriculum. This study will be conducted with approximately fifty ESL speakers over the course of two successive implementations of the curriculum. Each cohort will consist of approximately twenty-five students. The students should be recent adult immigrants who are now residing in the United States. These immigrants come from educationally and socioeconomically disadvantaged backgrounds. This is in line with the population that this project was designed for. The setting will most likely be a community college classroom or a non-profit community ESL program setting. This study will take place over the course of five months, assuming that the classes meet twice a week for ninety minutes each.

Before and after implementation of the curriculum, all the students in the class will take the Agency for Healthcare Research and Quality's “Short Assessment of Health Literacy”. This assessment can be found online at http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy/index.html. This tool was designed by the agency to assess individuals' levels of health literacy. The test takes two to three minutes to administer and contain eighteen items. Each item consists of a set of three health-related words. The examiner holds up

a card with the three words and the student has to pronounce the first word. Then the student has to identify which of the following two words is related to the first word. If the student cannot identify the associated word, the student should say “I don't know.” A correct answer consists of the ability to pronounce the first word as well as identify the correct association (Lee S.Y.D., Stucky, Lee J.Y., Rozier, & Bender, 2010).

For this assessment, scores below fourteen indicate a low level of health literacy. However, for the purposes of this study, the researchers are more interested in changes in the students' scores before and after implementation of the curriculum rather than the absolute scores. The researchers will average the students scores on the pretests and post-tests and compare the two averages. They will also compare the scores for individual students to figure out how many students showed an improvement in health literacy according to this measurement tool. The researchers will do this procedure with both cohort of students.

The Short Assessment of Health Literacy measures grasp of heath vocabulary and pronunciation, but it does not measure other aspects of health literacy such as comprehension of printed health materials or numeracy skills. Therefore, students will also take the “Test of Functional Health Literacy in Adults” before and after implementation of the curriculum. This tool can be purchased online at http://www.peppercornbooks.com/catalog/product_info.php?products_id=2514&osCsid=. Sample pages from the test document can be found at http://www.peppercornbooks.com/catalog/information.php?info_id=5, and a shortened version of the test can be found at www.reginfo.gov/public/do/DownloadDocument?documentID...1. This test measures health literacy related numerical abilities and reading comprehension (Parker, Baker, Williams, & Nurss, 1995). The first part of the assessment consists of seventeen multiple-

choice questions that require the student to interpret documents and numbers. For example, the student is presented with a variety of medication labels and asked how many pills should be taken, when they should be taken, when the pills expire, and how many refills there are. The second part of the test is a cloze activity to test reading comprehension. In this part of the test, the student is presented with three text passages with some blank spaces. For each blank space, the student has to choose the appropriate word to complete the passage. The three passages are an excerpt from a medical insurance application, an excerpt from a surgical consent form, and instructions regarding what a patient can eat and drink before a procedure. Scores are given to individuals to determine if they have limited, marginal, or adequate health literacy (Weiss & Yox, 2007).

Again, the absolute scores for this assessment are less relevant than changes between the pretest and post-test scores. Analysis of these scores will be similar to analysis of the scores for the "Short Assessment of Health Literacy". Researchers will average the scores from the pretest and the post-test and compare the two averages. They will also compare the scores for individual students to determine what percentage of students showed an improvement in health literacy scores after being exposed to the curriculum.

In addition to the objective measures of health literacy described above, a questionnaire (see Appendix) will be administered to students before and after implementation of the curriculum to gauge students subjective perceptions of their health literacy skills. The questionnaire will require students to rate various health literacy abilities on a scale from zero to five. The questionnaire will be administered before and after implementation of the curriculum. The ratings for each item from the pre-questionnaires and the post-questionnaires will be

compared to determine what percentage of students perceived an improvement after going through the curriculum.

Moreover, focus groups will be conducted with ten students from each cohort of students after they have been exposed to the curriculum. These students will be chosen randomly from each cohort. They will answer questions from interviewers about perceived benefits of the health literacy curriculum and about specific examples of how the curriculum has helped them with real-life health communication.

Furthermore, copies of selected materials created by students during the curriculum will be collected and evaluated. This includes the list of community health providers and health resources that students create in Unit 2, the health education handouts that the students create in Lesson 2 of Unit 3, the medication label information charts that students fill out in Lesson 1 of Unit 4, and the health history and insurance application forms that students fill out in Unit 5. These materials will be analyzed qualitatively for accuracy of content information. This analysis will subsequently be used to determine the areas of health literacy that students are proficient in and areas that warrant further attention and improvement.

To minimize threats to the validity of this study, two different cohorts of students who were exposed to the curriculum will be studied. Five different methods will be used to measure students' health literacy levels before and after implementation of the curriculum. This includes two objective tests of health literacy levels, one subjective questionnaire regarding students' perceptions of their own health literacy skills, focus groups with random samples of students, and evaluation of work produced by the students.

The two objective assessment instruments have been widely used and tested for validity

(Lee et al., 2010; Parker et al., 1995; Weiss & Yox, 2007; Bann, McCormack, Berkman, & Squirers, 2012). In addition, two different tools were employed in this study to more comprehensively assess the different aspects of health literacy.

However, one possible validity issue with the use of these two tools to assess health literacy is that the "Short Assessment of Health Literacy" requires the examiner to judge whether students have pronounced various health terms correctly. If the examiner believes that the student did not pronounce the term correctly, then the student does not receive a point for that assessment item. To minimize this threat, the only criteria for "correct pronunciation" is intelligibility, not Standard American English accuracy. Moreover, there will be two examiners present to mark down whether the student pronounced the term correctly. These two examiners will compare their judgments at the end of the test before assigning the student a final score.

Another threat to validity is that the two assessment tools may not accurately assess health literacy skills in students who are not accustomed to test-taking. Although the students taking the health literacy classes are literate in their first language, but they may not have had extensive education in the past and may not be accustomed to taking tests. Moreover, pronouncing words in another language in front of two examiners can be very intimidating, further impeding the students' abilities to answer the test items correctly. Therefore, in this study, a subjective student questionnaire, student focus groups, and qualitative evaluation of students' created materials will also be utilized to gauge students health literacy skills.

In terms of the student questionnaire, a zero to five rating scale will be utilized to minimize variation in students' answers and researcher's bias in analyzing students' responses. However, there may still be questions of validity because different students may have different

definitions of the various health literacy skills on the questionnaire. The questionnaire will have to be very specific when defining the health literacy skills that it inquires about. Moreover, students may be biased to report an improvement in health literacy just because they have gone through the entire curriculum. That is why this questionnaire should be used in conjunction with the four other assessment methods identified in this evaluation plan.

This proposed study is a preliminary plan for evaluating the effectiveness of the ESL/health literacy curriculum. It includes five different methods for assessing changes in students' levels of health literacy. This proposed study will need to be further developed and adapted according to the specific context in which the curriculum is implemented to effectively assess the impact of this curriculum on students' health literacy and language development.

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APPENDIX

Health Literacy Skills

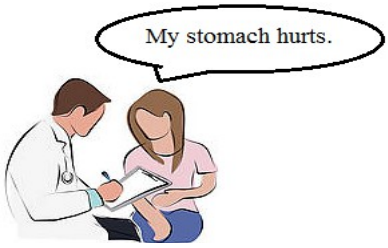
Student Questionnaire for Evaluation Plan

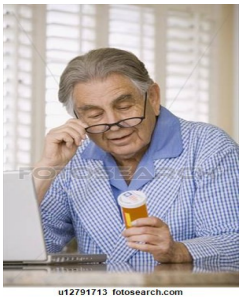
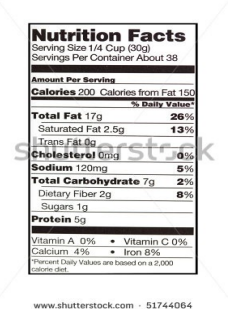
Health Literacy Skills Student Questionnaire

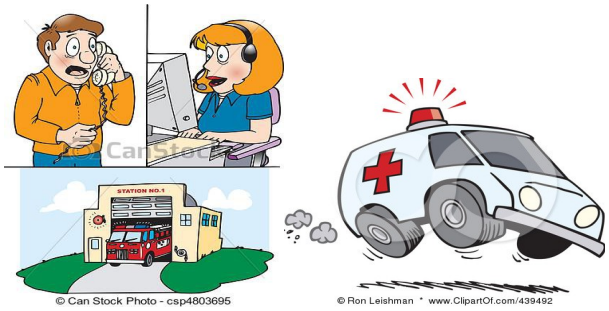
How well are you able to do the following?

Rate from 0 to 5.

0 = not at all
1 = very poorly
2 = poorly
3 = okay
4 = well
5 = very well

	Circle one:					
Tell the doctor about your medical problems. 	0	1	2	3	4	5
Ask for health information from your doctor. 	0	1	2	3	4	5
Understand what your doctor says to you. 	0	1	2	3	4	5

Read printed health information.  	0	1	2	3	4	5
Read medication labels.   	0	1	2	3	4	5
Read nutrition labels.   	0	1	2	3	4	5
Fill out forms in your doctor's office. 	0	1	2	3	4	5

Fill out health insurance forms. 	0	1	2	3	4	5
Know where to go for health care. 	0	1	2	3	4	5
Call 911 for medical emergencies. 	0	1	2	3	4	5
Find health information on the Internet. 	0	1	2	3	4	5

All images retrieved on December 15, 2014 from Google Images.
Questionnaire created by Lee, D. (2014).